

THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR MANUFACTURING OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS.

## FIELD MAINTENANCE PRINT SET

| DRAWING NUMBER              |  |  | DESCRIPTION                   |  |  | UNIT VARIATIONS COVERED BY THIS PRINT SET |  |  |
|-----------------------------|--|--|-------------------------------|--|--|---|--|--|
| K-TC-KA785-0-DBF            |  |  | CPU ASSY (KA785)              |  |  | KA785-AA                                  |  |  |
| B-DD-KA785-AA               |  |  | DRAWING DIRECTORY (KA785)     |  |  | KA785-AB                                  |  |  |
| B-DD-KA785-AB               |  |  | DRAWING DIRECTORY (KA785)     |  |  |   |  |  |
| E-UA-KA785-0-0              |  |  | CPU ASSY (KA785)              |  |  |   |  |  |
| K-PL-KA785-0-DBP            |  |  | CPU ASSY (KA785)              |  |  |   |  |  |
| D-MU-KA785-0-2              |  |  | MODULE UTILIZATION CPU        |  |  |   |  |  |
| D-BD-KA785-0-3              |  |  | CPU SYSTEM BLOCK DIAGRAM      |  |  |   |  |  |
| D-FD-KA785-0-4              |  |  | VAX AND CM MODE ENTRY POINTS  |  |  |   |  |  |
| E-IA-7020579-0-0            |  |  | BACKPLANE ASSY (CPU)          |  |  |   |  |  |
| E-UA-5412870-YA-0           |  |  | BOARD, DRILL AND ETCH CPU - 1 |  |  |   |  |  |
| E-UA-5412872-YA-0           |  |  | BOARD, DRILL AND ETCH CPU - 2 |  |  |   |  |  |
| D-IC-11785-A-3              |  |  | S.B.I. INTERCONNECT 11785-A   |  |  |   |  |  |
| E-AD-7014956-0-0            |  |  | SUPPLY, UBA OPTION            |  |  |   |  |  |
| E-UA-M7460-0-0              |  |  | S.B.L.                        |  |  |   |  |  |
| K-PL-M7460-0-DBP            |  |  | S.B.L.                        |  |  |   |  |  |
| K-CS-M7460-0 (COMPLETE SET) |  |  | S.B.L.                        |  |  |   |  |  |
| B-DD-M7460-0-0              |  |  | S.B.L.                        |  |  |   |  |  |
| E-EC-5016069-0-0            |  |  | S.B.L. (ETCH CUT)             |  |  |   |  |  |
| E-UA-M7461-0-0              |  |  | S.B.H.                        |  |  |   |  |  |
| K-PL-M7461-0-DBP            |  |  | S.B.H.                        |  |  |   |  |  |
| K-C3-M7461-0 (COMPLETE SET) |  |  | S.B.H.                        |  |  |   |  |  |
| B-DD-M7461-0-0              |  |  | S.B.H.                        |  |  |   |  |  |
| E-EC-5016078-0-0            |  |  | S.B.H. (ETCH CUT)             |  |  |   |  |  |
| E-UA-M7462-0-0              |  |  | C.A.M.                        |  |  |   |  |  |
| K-PL-M7462-0-DBP            |  |  | C.A.M.                        |  |  |   |  |  |
| K-CS-M7462-0 (COMPLETE SET) |  |  | C.A.M.                        |  |  |   |  |  |
| B-DD-M7462-0-0              |  |  | C.A.M.                        |  |  |   |  |  |
| E-EC-5016077-0-0            |  |  | C.A.M. (ETCH CUT)             |  |  |   |  |  |
| E-UA-M7463-0-0              |  |  | C.D.M.                        |  |  |   |  |  |
| K-PL-M7463-0-DBP            |  |  | C.D.M.                        |  |  |   |  |  |
| K-C3-M7463-0 (COMPLETE SET) |  |  | C.D.M.                        |  |  |   |  |  |
| B-DD-M7463-0-0              |  |  | C.D.M.                        |  |  |   |  |  |

| REVISION HISTORY |             |          | CONT. REVISION HISTORY |            |      | MADE BY: D. HERTZ<br>DATE: 10-OCT-83 |  |  |
|------------------|-------------|----------|------------------------|------------|------|--------------------------------------|--|--|
| REVI             | ECO NUMBER  | DATE     | REVI                   | ECO NUMBER | DATE |                                      |  |  |
| A                | INITIAL     | 1/11/83  |                        |            |      | CHECKED BY: D. CIRKA                 |  |  |
| B                | KA735-TW002 | 11/29/84 |                        |            |      | DATE: 10-OCT-83                      |  |  |
|                  |             |          |                        |            |      | PROJECT ENGR: D. CIRKA               |  |  |
|                  |             |          |                        |            |      | DATE: 10-OCT-83                      |  |  |
|                  |             |          |                        |            |      | RSP3LE ENGR: R. CASABONA             |  |  |
|                  |             |          |                        |            |      | DATE: 10-OCT-83                      |  |  |
|                  |             |          |                        |            |      | FIELD SERVICE: F. RAMADAN            |  |  |
|                  |             |          |                        |            |      | DATE: 10-OCT-83                      |  |  |

| TITLE: FIELD MAINTENANCE PRINT SET |      |                 |      |
|------------------------------------|------|-----------------|------|
| CPU ASSY KA785                     |      |                 |      |
| SIZE                               | CODE | DOCUMENT NUMBER | REV. |
| K                                  | TC   | KA785-0-DBF     | B    |

SHEET 1 OF 3

\*\*\*\*\* FIELD MAINTENANCE PRINT SET \*\*\*\*\*

"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE.  
DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN"

TABLE OF CONTENTS

| DRAWING NUMBER              | DESCRIPTION       |
|-----------------------------|-------------------|
| E-EC-5016076-0-0            | C.D.M. (ETCH CUT) |
| E-UA-M7464-0-0              | T.B.M.            |
| K-PL-M7464-0-DBP            | T.B.M.            |
| K-CS-M7464-0 (COMPLETE SET) | T.B.M.            |
| B-DD-M7464-0-0              | T.B.M.            |
| E-EC-5016075-0-0            | T.B.M. (ETCH CUT) |
| E-UA-M7465-0-0              | I.D.P.            |
| K-PL-M7465-0-DBP            | I.D.P.            |
| D-CS-M7465-0 (COMPLETE SET) | I.D.P.            |
| B-DD-M7465-0-0              | I.D.P.            |
| E-UA-M7466-0-0              | I.R.C.            |
| K-PL-M7466-0-DBP            | I.R.C.            |
| K-CS-M7466-0 (COMPLETE SET) | I.R.C.            |
| B-DD-M7466-0-0              | I.R.C.            |
| E-EC-5016073-0-0            | I.R.C. (ETCH CUT) |
| E-UA-M7467-0-0              | D.B.P.            |
| K-PL-M7467-0-DBP            | D.B.P.            |
| K-CS-M7467-0 (COMPLETE SET) | D.B.P.            |
| B-DD-M7467-0-0              | D.B.P.            |
| E-EC-5016072-0-0            | D.B.P. (ETCH CUT) |
| E-UA-M7468-0-0              | D.E.P.            |
| K-PL-M7468-0-DBP            | D.E.P.            |
| D-CS-M7468-0 (COMPLETE SET) | D.E.P.            |
| B-DD-M7468-0-0              | D.E.P.            |
| E-UA-M7469-0-0              | D.D.P.            |
| K-PL-M7469-0-DBP            | D.D.P.            |
| D-CS-M7469-0 (COMPLETE SET) | D.D.P.            |
| B-DD-M7469-0-0              | D.D.P.            |
| E-UA-M7470-0-0              | D.C.P.            |
| K-PL-M7470-0-DBP            | D.C.P.            |
| D-CS-M7470-0 (COMPLETE SET) | D.C.P.            |
| B-DD-M7470-0-0              | D.C.P.            |
| E-UA-M7471-0-0              | D.A.P.            |
| K-PL-M7471-0-DBP            | D.A.P.            |
| D-CS-M7471-0 (COMPLETE SET) | D.A.P.            |
| B-DD-M7471-0-0              | D.A.P.            |
| E-UA-M7472-0-0              | C.E.H.            |
| K-PL-M7472-0-DBP            | C.E.H.            |
| K-CS-M7472-0 (COMPLETE SET) | C.E.H.            |
| B-DD-M7472-0-0              | C.E.H.            |
| E-EC-5016079-0-0            | C.E.H. (ETCH CUT) |

|                   |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
|-------------------|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--|--|--|
| TITLE             |  |  |  |  |  |  |  |  |  | DOCUMENT NUMBER    |  |  |  |  |  |  |  |  |  |
| TABLE OF CONTENTS |  |  |  |  |  |  |  |  |  | SIZE CODE NUMBER   |  |  |  |  |  |  |  |  |  |
| KA795             |  |  |  |  |  |  |  |  |  | REV.               |  |  |  |  |  |  |  |  |  |
| SHEET 2 OF 3      |  |  |  |  |  |  |  |  |  | K TC KA795-0-D3F 3 |  |  |  |  |  |  |  |  |  |

\*\*\*\*\* FIELD MAINTENANCE PRINT SET \*\*\*\*\*

\*THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE.  
DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN\*

TABLE OF CONTENTS

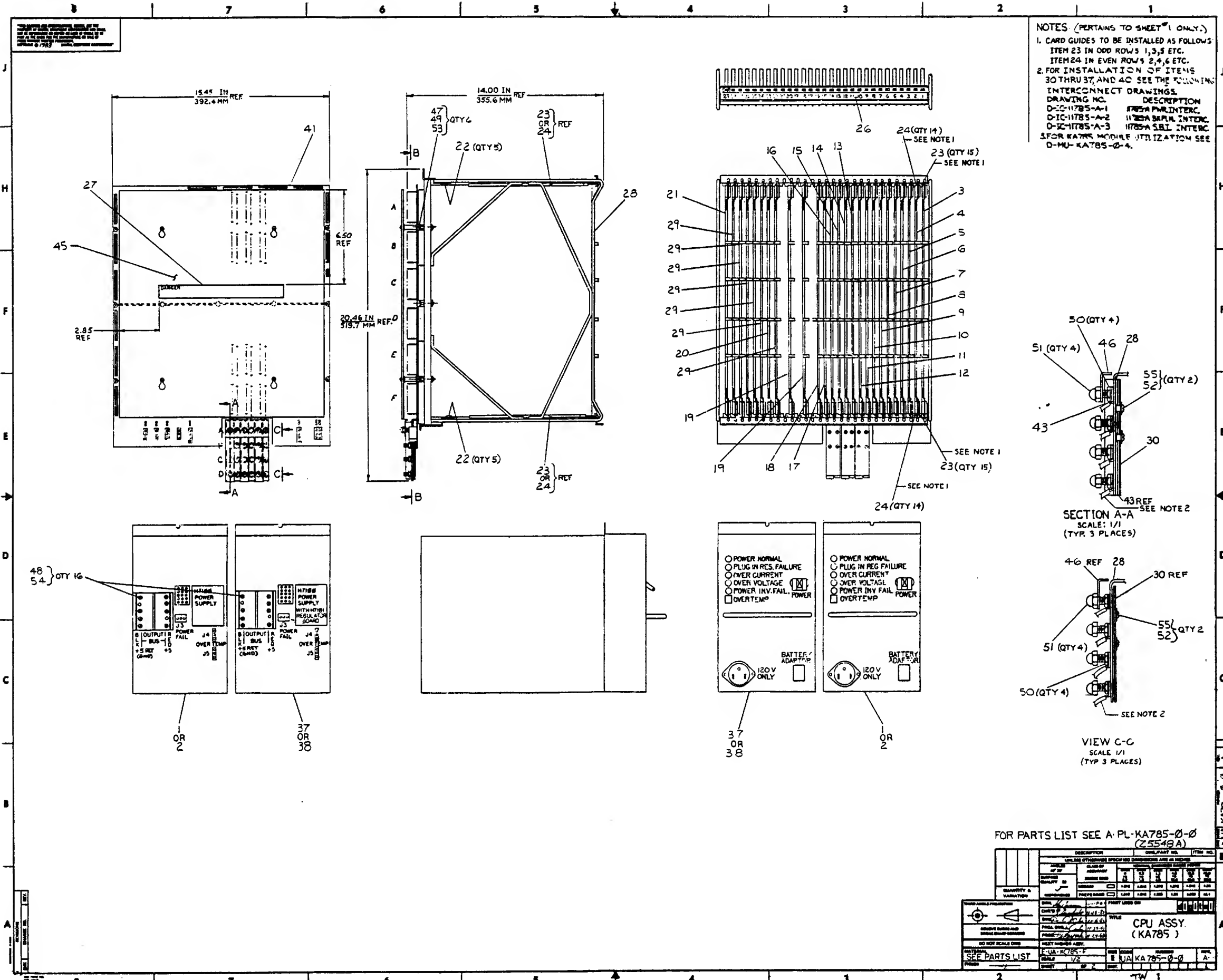
| DRAWING NUMBER              | DESCRIPTION       |
|-----------------------------|-------------------|
| E-UA-M7473-0-0              | I.C.L.            |
| K-PL-M7473-0-DBP            | I.C.L.            |
| K-CS-M7473-0 (COMPLETE SET) | I.C.L.            |
| B-DD-M7473-0-0              | I.C.L.            |
| E-EC-5016100-0-0            | I.C.L. (ETCH CUT) |
| E-UA-M7474-0-0              | C.L.K.            |
| K-PL-M7474-0-DBP            | C.L.K.            |
| K-CS-M7474-0 (COMPLETE SET) | C.L.K.            |
| B-DD-M7474-0-0              | C.L.K.            |
| E-EC-5016101-0-0            | C.L.K. (ETCH CUT) |
| E-UA-M7475-0-0              | J.C.S.            |
| K-PL-M7475-0-DBP            | J.C.S.            |
| K-CS-M7475-0 (COMPLETE SET) | J.C.S.            |
| B-DD-M7475-0-0              | J.C.S.            |
| E-EC-5016102-0-0            | J.C.S. (ETCH CUT) |
| E-UA-M7476-0-0              | U.S.C.            |
| K-PL-M7476-0-DBP            | U.S.C.            |
| K-CS-M7476-0 (COMPLETE SET) | U.S.C.            |
| B-DD-M7476-0-0              | U.S.C.            |
| E-EC-5016103-0-0            | U.S.C. (ETCH CUT) |
| E-UA-M7477-0-0              | C.I.B.            |
| K-PL-M7477-0-DBP            | C.I.B.            |
| D-CS-M7477-0 (COMPLETE SET) | C.I.B.            |
| B-DD-M7477-0-0              | C.I.B.            |
| E-UA-M7459-0-0              | T.R.S.            |
| K-PL-M7459-0-DBP            | T.R.S.            |
| D-CS-M7459-0 (COMPLETE SET) | T.R.S.            |
| B-DD-M7459-0-0              | T.R.S.            |
| E-EC-5016067-0-0            | T.R.S. (ETCH CUT) |

|       |   |   |   |   |   |   |                   |      |             |      |
|-------|---|---|---|---|---|---|-------------------|------|-------------|------|
| TITLE |   |   |   |   |   |   | DOCUMENT NUMBER   |      |             |      |
| d     | i | s | i | t | a | l | TABLE OF CONTENTS |      |             |      |
| KA795 |   |   |   |   |   |   | SHEET 3 OF 3      |      |             |      |
|       |   |   |   |   |   |   | SIZE              | CODE | NUMBER      | REV. |
|       |   |   |   |   |   |   | K                 | TC   | KA795-0-D9F | B    |





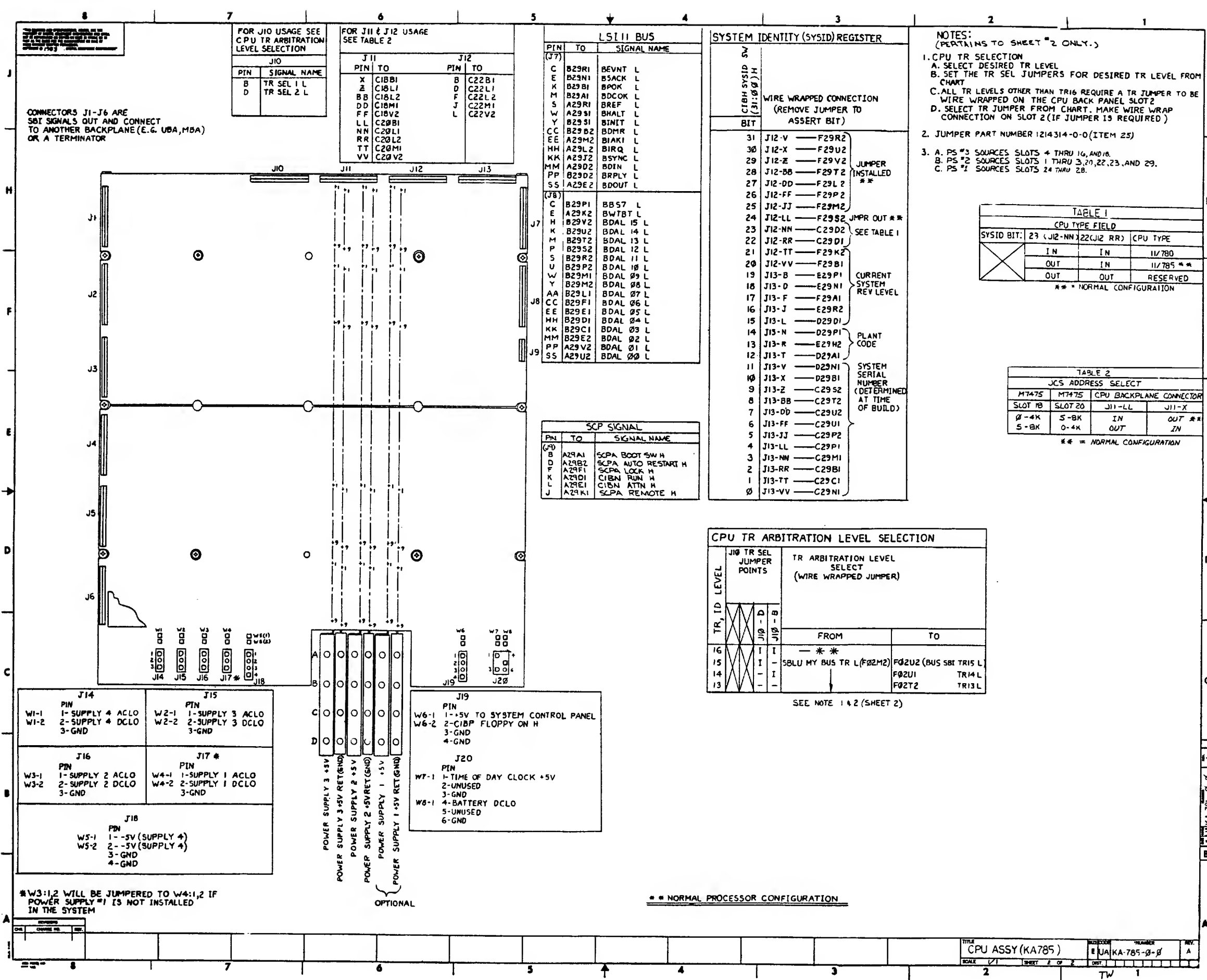




NOTES (PERTAINS TO SHEET 1 ONLY.)  
1. CARD GUIDES TO BE INSTALLED AS FOLLOWS  
ITEM 23 IN ODD ROWS 1,3,5 ETC.  
ITEM 24 IN EVEN ROWS 2,4,6 ETC.  
2. FOR INSTALLATION OF ITEMS  
30 THRU 37, AND 40 SEE THE FOLLOWING  
INTERCONNECT DRAWINGS.  
DRAWING NO. DESCRIPTION  
D-C-11785-A-1 11785A PWR. INTERC.  
D-IC-11785-A-2 11785A BATT. INTERC.  
D-IC-11785-A-3 11785A SBI. INTERC.  
3. FOR KATRS MODULE UTILIZATION SEE  
D-MU-KA785-0-4.

FOR PARTS LIST SEE A-PL-KA785-0-0  
(Z5548A)

| QUANTITY & VARIATION |     | DESCRIPTION |     | ITEM NO. |     |
|----------------------|-----|-------------|-----|----------|-----|
| 1                    | 1   | 1           | 1   | 1        | 1   |
| 2                    | 2   | 2           | 2   | 2        | 2   |
| 3                    | 3   | 3           | 3   | 3        | 3   |
| 4                    | 4   | 4           | 4   | 4        | 4   |
| 5                    | 5   | 5           | 5   | 5        | 5   |
| 6                    | 6   | 6           | 6   | 6        | 6   |
| 7                    | 7   | 7           | 7   | 7        | 7   |
| 8                    | 8   | 8           | 8   | 8        | 8   |
| 9                    | 9   | 9           | 9   | 9        | 9   |
| 10                   | 10  | 10          | 10  | 10       | 10  |
| 11                   | 11  | 11          | 11  | 11       | 11  |
| 12                   | 12  | 12          | 12  | 12       | 12  |
| 13                   | 13  | 13          | 13  | 13       | 13  |
| 14                   | 14  | 14          | 14  | 14       | 14  |
| 15                   | 15  | 15          | 15  | 15       | 15  |
| 16                   | 16  | 16          | 16  | 16       | 16  |
| 17                   | 17  | 17          | 17  | 17       | 17  |
| 18                   | 18  | 18          | 18  | 18       | 18  |
| 19                   | 19  | 19          | 19  | 19       | 19  |
| 20                   | 20  | 20          | 20  | 20       | 20  |
| 21                   | 21  | 21          | 21  | 21       | 21  |
| 22                   | 22  | 22          | 22  | 22       | 22  |
| 23                   | 23  | 23          | 23  | 23       | 23  |
| 24                   | 24  | 24          | 24  | 24       | 24  |
| 25                   | 25  | 25          | 25  | 25       | 25  |
| 26                   | 26  | 26          | 26  | 26       | 26  |
| 27                   | 27  | 27          | 27  | 27       | 27  |
| 28                   | 28  | 28          | 28  | 28       | 28  |
| 29                   | 29  | 29          | 29  | 29       | 29  |
| 30                   | 30  | 30          | 30  | 30       | 30  |
| 31                   | 31  | 31          | 31  | 31       | 31  |
| 32                   | 32  | 32          | 32  | 32       | 32  |
| 33                   | 33  | 33          | 33  | 33       | 33  |
| 34                   | 34  | 34          | 34  | 34       | 34  |
| 35                   | 35  | 35          | 35  | 35       | 35  |
| 36                   | 36  | 36          | 36  | 36       | 36  |
| 37                   | 37  | 37          | 37  | 37       | 37  |
| 38                   | 38  | 38          | 38  | 38       | 38  |
| 39                   | 39  | 39          | 39  | 39       | 39  |
| 40                   | 40  | 40          | 40  | 40       | 40  |
| 41                   | 41  | 41          | 41  | 41       | 41  |
| 42                   | 42  | 42          | 42  | 42       | 42  |
| 43                   | 43  | 43          | 43  | 43       | 43  |
| 44                   | 44  | 44          | 44  | 44       | 44  |
| 45                   | 45  | 45          | 45  | 45       | 45  |
| 46                   | 46  | 46          | 46  | 46       | 46  |
| 47                   | 47  | 47          | 47  | 47       | 47  |
| 48                   | 48  | 48          | 48  | 48       | 48  |
| 49                   | 49  | 49          | 49  | 49       | 49  |
| 50                   | 50  | 50          | 50  | 50       | 50  |
| 51                   | 51  | 51          | 51  | 51       | 51  |
| 52                   | 52  | 52          | 52  | 52       | 52  |
| 53                   | 53  | 53          | 53  | 53       | 53  |
| 54                   | 54  | 54          | 54  | 54       | 54  |
| 55                   | 55  | 55          | 55  | 55       | 55  |
| 56                   | 56  | 56          | 56  | 56       | 56  |
| 57                   | 57  | 57          | 57  | 57       | 57  |
| 58                   | 58  | 58          | 58  | 58       | 58  |
| 59                   | 59  | 59          | 59  | 59       | 59  |
| 60                   | 60  | 60          | 60  | 60       | 60  |
| 61                   | 61  | 61          | 61  | 61       | 61  |
| 62                   | 62  | 62          | 62  | 62       | 62  |
| 63                   | 63  | 63          | 63  | 63       | 63  |
| 64                   | 64  | 64          | 64  | 64       | 64  |
| 65                   | 65  | 65          | 65  | 65       | 65  |
| 66                   | 66  | 66          | 66  | 66       | 66  |
| 67                   | 67  | 67          | 67  | 67       | 67  |
| 68                   | 68  | 68          | 68  | 68       | 68  |
| 69                   | 69  | 69          | 69  | 69       | 69  |
| 70                   | 70  | 70          | 70  | 70       | 70  |
| 71                   | 71  | 71          | 71  | 71       | 71  |
| 72                   | 72  | 72          | 72  | 72       | 72  |
| 73                   | 73  | 73          | 73  | 73       | 73  |
| 74                   | 74  | 74          | 74  | 74       | 74  |
| 75                   | 75  | 75          | 75  | 75       | 75  |
| 76                   | 76  | 76          | 76  | 76       | 76  |
| 77                   | 77  | 77          | 77  | 77       | 77  |
| 78                   | 78  | 78          | 78  | 78       | 78  |
| 79                   | 79  | 79          | 79  | 79       | 79  |
| 80                   | 80  | 80          | 80  | 80       | 80  |
| 81                   | 81  | 81          | 81  | 81       | 81  |
| 82                   | 82  | 82          | 82  | 82       | 82  |
| 83                   | 83  | 83          | 83  | 83       | 83  |
| 84                   | 84  | 84          | 84  | 84       | 84  |
| 85                   | 85  | 85          | 85  | 85       | 85  |
| 86                   | 86  | 86          | 86  | 86       | 86  |
| 87                   | 87  | 87          | 87  | 87       | 87  |
| 88                   | 88  | 88          | 88  | 88       | 88  |
| 89                   | 89  | 89          | 89  | 89       | 89  |
| 90                   | 90  | 90          | 90  | 90       | 90  |
| 91                   | 91  | 91          | 91  | 91       | 91  |
| 92                   | 92  | 92          | 92  | 92       | 92  |
| 93                   | 93  | 93          | 93  | 93       | 93  |
| 94                   | 94  | 94          | 94  | 94       | 94  |
| 95                   | 95  | 95          | 95  | 95       | 95  |
| 96                   | 96  | 96          | 96  | 96       | 96  |
| 97                   | 97  | 97          | 97  | 97       | 97  |
| 98                   | 98  | 98          | 98  | 98       | 98  |
| 99                   | 99  | 99          | 99  | 99       | 99  |
| 100                  | 100 | 100         | 100 | 100      | 100 |



FOR J10 USAGE SEE CPU TR ARBITRATION LEVEL SELECTION

| J10 |             |
|-----|-------------|
| PIN | SIGNAL NAME |
| B   | TR SEL 1 L  |
| D   | TR SEL 2 L  |

FOR J11 & J12 USAGE SEE TABLE 2

| J11 |       | J12 |       |
|-----|-------|-----|-------|
| PIN | TO    | PIN | TO    |
| X   | C18B1 | B   | C22B1 |
| Z   | C18L1 | D   | C22L1 |
| BB  | C18L2 | F   | C22L2 |
| DD  | C18M1 | J   | C22M1 |
| FF  | C18V2 | L   | C22V2 |
| LL  | C20B1 |     |       |
| NN  | C20L1 |     |       |
| RR  | C20L2 |     |       |
| TT  | C20M1 |     |       |
| VV  | C20V2 |     |       |

LSI II BUS

| PIN  | TO    | SIGNAL NAME |
|------|-------|-------------|
| (J7) |       |             |
| C    | B29R1 | BEVNT L     |
| E    | B29N1 | BSACK L     |
| K    | B29B1 | BPOK L      |
| M    | B29A1 | BDCOK L     |
| S    | A29R1 | BREF L      |
| W    | A29S1 | BHALT L     |
| Y    | B29S1 | BINIT L     |
| CC   | B29B2 | BDMR L      |
| EE   | A29M2 | BIAKI L     |
| HH   | A29L2 | BIRQ L      |
| KK   | A29J2 | BSYNC L     |
| MM   | A29D2 | B0IN L      |
| PP   | B29D2 | BRPLY L     |
| SS   | A29E2 | B0OUT L     |
| (J8) |       |             |
| C    | B29P1 | BB57 L      |
| E    | A29K2 | BW7BT L     |
| H    | B29V2 | BDAL 15 L   |
| K    | B29U2 | BDAL 14 L   |
| M    | B29T2 | BDAL 13 L   |
| P    | B29S2 | BDAL 12 L   |
| S    | B29R2 | BDAL 11 L   |
| U    | B29P2 | BDAL 10 L   |
| W    | B29M1 | BDAL 09 L   |
| Y    | B29M2 | BDAL 08 L   |
| AA   | B29L1 | BDAL 07 L   |
| CC   | B29F1 | BDAL 06 L   |
| EE   | B29E1 | BDAL 05 L   |
| HH   | B29D1 | BDAL 04 L   |
| KK   | B29C1 | BDAL 03 L   |
| MM   | B29E2 | BDAL 02 L   |
| PP   | A29V2 | BDAL 01 L   |
| SS   | A29U2 | BDAL 00 L   |

SCP SIGNAL

| PIN  | TO    | SIGNAL NAME         |
|------|-------|---------------------|
| (J9) |       |                     |
| B    | A29A1 | SCPA BOOT SW H      |
| D    | A29B2 | SCPA AUTO RESTART H |
| F    | A29F1 | SCPA LOCK H         |
| K    | A29D1 | CIBN RUN H          |
| L    | A29E1 | CIBN ATTN H         |
| J    | A29K1 | SCPA REMOTE H       |

SYSTEM IDENTITY (SYSID) REGISTER

| BIT | WIRE WRAPPED CONNECTION (REMOVE JUMPER TO ASSERT BIT) |
|-----|---|
| 31  | J12-V — F29R2   |
| 30  | J12-X — F29U2   |
| 29  | J12-Z — F29V2   |
| 28  | J12-BB — F29T2  |
| 27  | J12-DD — F29L2  |
| 26  | J12-FF — F29P2  |
| 25  | J12-JJ — F29M2  |
| 24  | J12-LL — F29S2 JUMPR OUT **                           |
| 23  | J12-NN — C29D2 SEE TABLE 1                            |
| 22  | J12-RR — C29D1  |
| 21  | J12-TT — F29K2  |
| 20  | J12-VV — F29B1  |
| 19  | J13-B — E29P1   |
| 18  | J13-D — E29N1   |
| 17  | J13-F — F29A1   |
| 16  | J13-J — E29R2   |
| 15  | J13-L — D29D1   |
| 14  | J13-N — D29P1   |
| 13  | J13-R — E29M2   |
| 12  | J13-T — D29A1   |
| 11  | J13-V — D29N1   |
| 10  | J13-X — D29B1   |
| 9   | J13-Z — C29S2   |
| 8   | J13-BB — C29T2  |
| 7   | J13-DD — C29U2  |
| 6   | J13-FF — C29U1  |
| 5   | J13-JJ — C29P2  |
| 4   | J13-LL — C29P1  |
| 3   | J13-NN — C29M1  |
| 2   | J13-RR — C29B1  |
| 1   | J13-TT — C29C1  |
| 0   | J13-VV — C29N1  |

NOTES: (PERTAINS TO SHEET #2 ONLY.)

- CPU TR SELECTION  
A. SELECT DESIRED TR LEVEL  
B. SET THE TR SEL JUMPERS FOR DESIRED TR LEVEL FROM CHART  
C. ALL TR LEVELS OTHER THAN TR16 REQUIRE A TR JUMPER TO BE WIRE WRAPPED ON THE CPU BACK PANEL SLOT2  
D. SELECT TR JUMPER FROM CHART. MAKE WIRE WRAP CONNECTION ON SLOT 2 (IF JUMPER 13 REQUIRED)
- JUMPER PART NUMBER 1214314-0-0 (ITEM 25)
- A. PS #3 SOURCES SLOTS 4 THRU 16, AND 18.  
B. PS #2 SOURCES SLOTS 1 THRU 3, 20, 22, 23, AND 29.  
C. PS #1 SOURCES SLOTS 24 THRU 28.

TABLE 1  
CPU TYPE FIELD

| SYSID BIT: 23 (J12-NN) 22 (J12-RR) | CPU TYPE |
|------------------------------------|----------|
| IN                                 | IN       |
| OUT                                | IN       |
| OUT                                | OUT      |
| OUT                                | RESERVED |

\*\* = NORMAL CONFIGURATION

TABLE 2  
JCS ADDRESS SELECT

| MT475   | MT475   | CPU BACKPLANE CONNECTOR |
|---------|---------|-------------------------|
| SLOT 10 | SLOT 20 | J11-LL J11-X            |
| 0-4K    | 5-8K    | IN OUT **               |
| 5-8K    | 0-4K    | OUT IN                  |

\*\* = NORMAL CONFIGURATION

CPU TR ARBITRATION LEVEL SELECTION

| TR, ID LEVEL | J10 TR SEL JUMPER POINTS | TR ARBITRATION LEVEL SELECT (WIRE WRAPPED JUMPER) |
|--------------|--------------------------|---|
|              | J10-D J10-B              | FROM TO   |
| 16           | I I                      | — * * —   |
| 15           | I I                      | SBLU MY BUS TR L (F02M2) F02U2 (BUS SBT TRIS L)   |
| 14           | I I                      | F02U1 TR14 L                                      |
| 13           | I I                      | F02T2 TR13 L                                      |

J14

| PIN  | TO              |
|------|-----------------|
| W1-1 | 1-SUPPLY 4 ACLO |
| W1-2 | 2-SUPPLY 4 DCLO |
|      | 3-GND           |

J15

| PIN  | TO              |
|------|-----------------|
| W2-1 | 1-SUPPLY 3 ACLO |
| W2-2 | 2-SUPPLY 3 DCLO |
|      | 3-GND           |

J16

| PIN  | TO              |
|------|-----------------|
| W3-1 | 1-SUPPLY 2 ACLO |
| W3-2 | 2-SUPPLY 2 DCLO |
|      | 3-GND           |

J17

| PIN  | TO              |
|------|-----------------|
| W4-1 | 1-SUPPLY 1 ACLO |
| W4-2 | 2-SUPPLY 1 DCLO |
|      | 3-GND           |

J18

| PIN  | TO               |
|------|------------------|
| W5-1 | 1--5V (SUPPLY 4) |
| W5-2 | 2--5V (SUPPLY 4) |
|      | 3-GND            |
|      | 4-GND            |

J19

| PIN  | TO                            |
|------|-------------------------------|
| W6-1 | 1--5V TO SYSTEM CONTROL PANEL |
| W6-2 | 2-CIBP FLOPPY ON H            |
|      | 3-GND                         |
|      | 4-GND                         |

J20

| PIN  | TO                      |
|------|-------------------------|
| W7-1 | 1-TIME OF DAY CLOCK +5V |
|      | 2-UNUSED                |
|      | 3-GND                   |
| W8-1 | 4-BATTERY DCLO          |
|      | 5-UNUSED                |
|      | 6-GND                   |

AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A1 OF A2

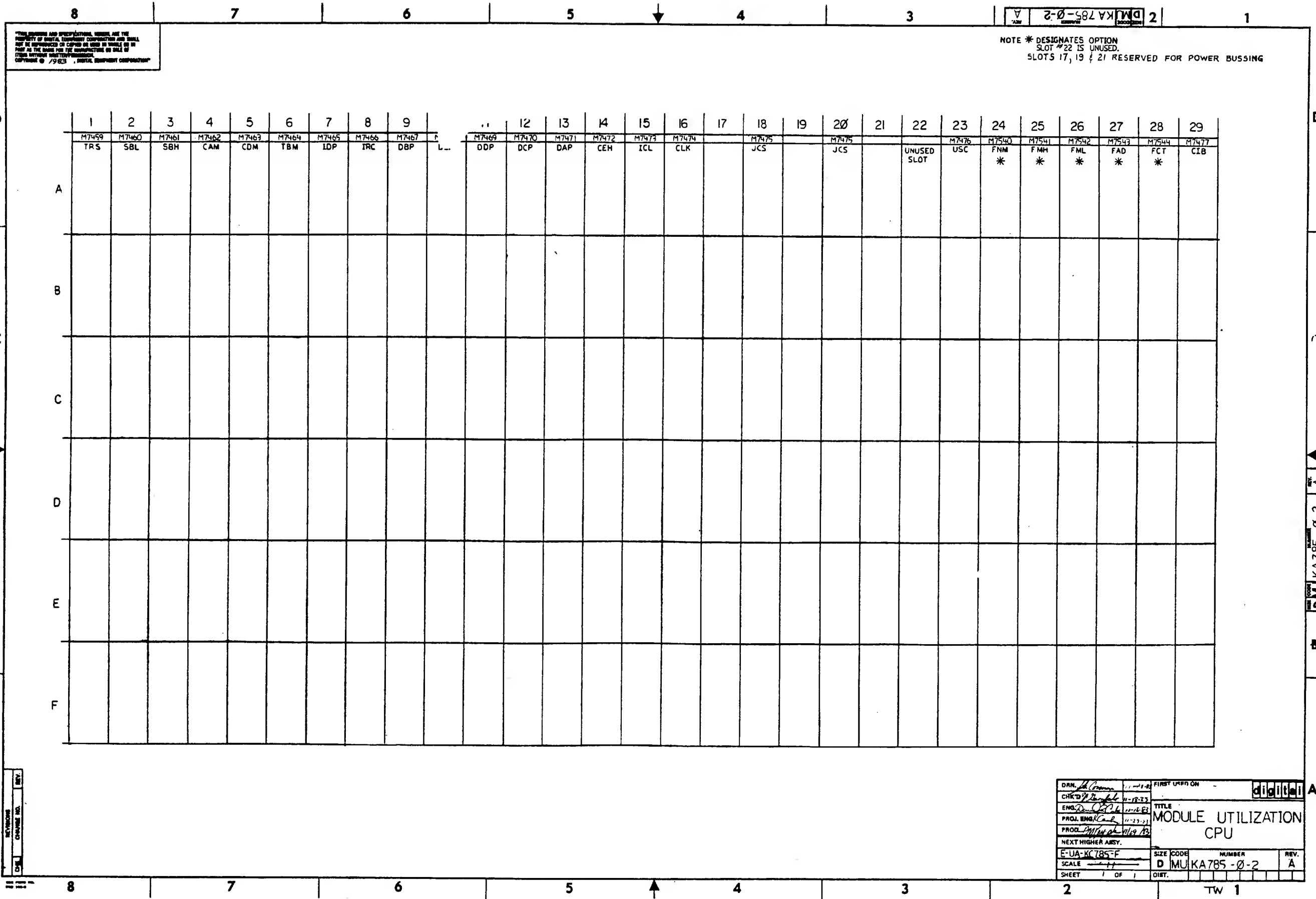
|      |      |                    |             |     | MIN                              |           |          | QTY    | PER | VARIATION |
|------|------|--------------------|-------------|-----|----------------------------------|-----------|----------|--------|-----|-----------|
| LINE | ITEM | TOP DOCUMENT       | PART NUMBER | REV | DESCRIPTION                      | AA        | AB       |        |     |           |
|      |      |                    |             |     |                                  | VARIATION | REVISION | LEVEL: | 00  | 00        |
| 1    | 1    | B-DD-H7100-0-0     | H7100-A     |     | 11780 500 WATT SUPPLY: 5V 100A,1 | 1         | -        |        |     |           |
| 2    | 2    | B-DD-H7100-0-0     | H7100-8     |     | 11780 500-WATT SUPPLY: 5V 100A,2 | -         | 1        |        |     |           |
| 3    | 3    | E-UA-M7459-0-0     | M7459-00    |     | TRS,TERMINATOR & SILO,4-LAYER HE | 1         | 1        |        |     |           |
| 4    | 4    | E-UA-M7460-0-0     | M7460-00    |     | KA785,SBL,CPU SBI LOW BITS INTER | 1         | 1        |        |     |           |
| 5    | 5    | E-UA-M7461-0-0     | M7461-00    |     | KA785,SBH,SBI (SYNCHRONOUS BACK  | 1         | 1        |        |     |           |
| 6    | 6    | E-UA-M7462-0-0     | M7462-00    |     | KA785,CAM,CACHE ADDRESS MATRIX,4 | 1         | 1        |        |     |           |
| 7    | 7    | E-UA-M7463-0-0     | M7463-00    |     | KA785,CDM,CACHE DATA MATRIX,4-LA | 1         | 1        |        |     |           |
| 8    | 8    | E-UA-M7464-0-0     | M7464-00    |     | KA785,TBM,CPU TRANSLATION BUFFER | 1         | 1        |        |     |           |
| 9    | 9    | E-UA-M7465-0-0     | M7465-00    |     | KA785,IDP,CPU INSTRUCTION DATA P | 1         | 1        |        |     |           |
| 10   | 10   | E-UA-M7466-0-0     | M7466-00    |     | KA785,IRC,CPU INSTRUCTION DECODE | 1         | 1        |        |     |           |
| 11   | 11   | E-UA-M7467-0-0     | M7467-00    |     | KA785,DBP,CPU DATA PATH "B",4-LA | 1         | 1        |        |     |           |
| 12   | 12   | E-UA-M7468-0-0     | M7468-00    |     | KA785,DEP,CPU DATA PATH E,4-LAYE | 1         | 1        |        |     |           |
| 13   | 13   | E-UA-M7469-0-0     | M7469-00    |     | KA785,DDP,CPU DATA PATH D,4-LAYE | 1         | 1        |        |     |           |
| 14   | 14   | E-UA-M7470-0-0     | M7470-00    |     | KA785,DCP,CPU DATA PATH C,4-LAYE | 1         | 1        |        |     |           |
| 15   | 15   | E-UA-M7471-0-0     | M7471-00    |     | KA785,DAP,CPU DATA PATH A,4-LAYE | 1         | 1        |        |     |           |
| 16   | 16   | E-UA-M7472-0-0     | M7472-00    |     | KA785,CEH (CONDITION CODES,EXCEP | 1         | 1        |        |     |           |
| 17   | 17   | E-UA-M7473-0-0     | M7473-00    |     | KA785,ICL (INTERRUPT CONTROL,LOW | 1         | 1        |        |     |           |
| 18   | 18   | E-UA-M7474-0-0     | M7474-00    |     | KA785,CLK (CPU CLOCK),4-LAYER HE | 1         | 1        |        |     |           |
| 19   | 19   | E-UA-M7475-0-0     | M7475-00    |     | KA785,JCS,JOINT CONTROL STORE,4- | 2         | 2        |        |     |           |
| 20   | 20   | E-UA-M7476-0-0     | M7476-00    |     | KA785,USC,MICRO SEQUENCER CONTRO | 1         | 1        |        |     |           |
| 21   | 21   | E-UA-M7477-0-0     | M7477-00    |     | KA785,C18,CPU CONSOLE INTERFACE, | 1         | 1        |        |     |           |
| 22   | 22   |                    | 1211630-00  |     | GUIDE,CARD ,POLMIDE,NATURAL      | 10        | 10       |        |     |           |
| 23   | 23   |                    | 1212405-00  |     | GUIDE,CARD ,NYLON ,NATURAL       | 30        | 30       |        |     |           |
| 24   | 24   |                    | 1212405-01  |     | GUIDE,CARD ,NYLON ,MAGNETA       | 28        | 28       |        |     |           |
| 25   | 25   |                    | 1214314-00  |     | CONN,P+S 02SKT(1X02),100CC JUM   | 12        | 12       |        |     |           |
| 26   | 26   |                    | 3613281-05  |     | LABEL,ADHESIVE BACK FOR 8A11-K   | 1         | 1        |        |     |           |
| 27   | 27   |                    | 3615087-02  |     | LABEL,"DANGER-HIGH CURRENT"      | 1         | 1        |        |     |           |
| 28   | 28   | E-IA-7013713-0-0   | 7013713-00  |     | CARD CAGE CPU                    | 1         | 1        |        |     |           |
| 29   | 29   | E-IA-7014103-0-08U | 7014103-00  |     | BLANK MODULE ASSY                | 6         | 6        |        |     |           |
| 30   | 30   | D-IA-7014212-0-0   | 7014212-0M  |     | CABLE AC,DC,LOW                  | 2         | 2        |        |     |           |

| REVISION HISTORY |             |     | BASIC PART NO: KA785    |  | DRN: D. HERTZ          |  | DATE: 20-SEP-83      |  | D I G I T A L           |  |  |  |
|------------------|-------------|-----|-------------------------|--|------------------------|--|----------------------|--|-------------------------|--|--|--|
| ENG              | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D: R. NELSON       |  | DATE: 20-SEP-83      |  | TITLE PARTS LIST        |  |  |  |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  | DES.ENG: D. CIRKA      |  | DATE: 20-SEP-83      |  | CPU ASSY. (KA785)       |  |  |  |
| JB               | KA785-TW001 | B   | (A)AA,AB                |  | RESP.ENG.: R. CASABONA |  | DATE: 20-SEP-83      |  | DOCUMENT NUMBER         |  |  |  |
|                  |             |     | (B)                     |  | MFG.ENG.: M. KRYSAK    |  | DATE: 20-SEP-83      |  | SIZE!CODE! NUMBER REV   |  |  |  |
|                  |             |     | (C)                     |  | ASSEMBLY NUMBER:       |  | TOP DOCUMENT NUMBER: |  | K PL KA785-0-08P B      |  |  |  |
|                  |             |     | (D)                     |  | E-UA-KA785-0-0         |  | K-00-KA785-0-DBF     |  | RELEASE DATE: 27-SEP-84 |  |  |  |
|                  |             |     | (E)                     |  |                        |  |                      |  | FILE NAME: Z5553B.PLS   |  |  |  |
|                  |             |     | (F)                     |  |                        |  |                      |  | EDIT # 13               |  |  |  |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."

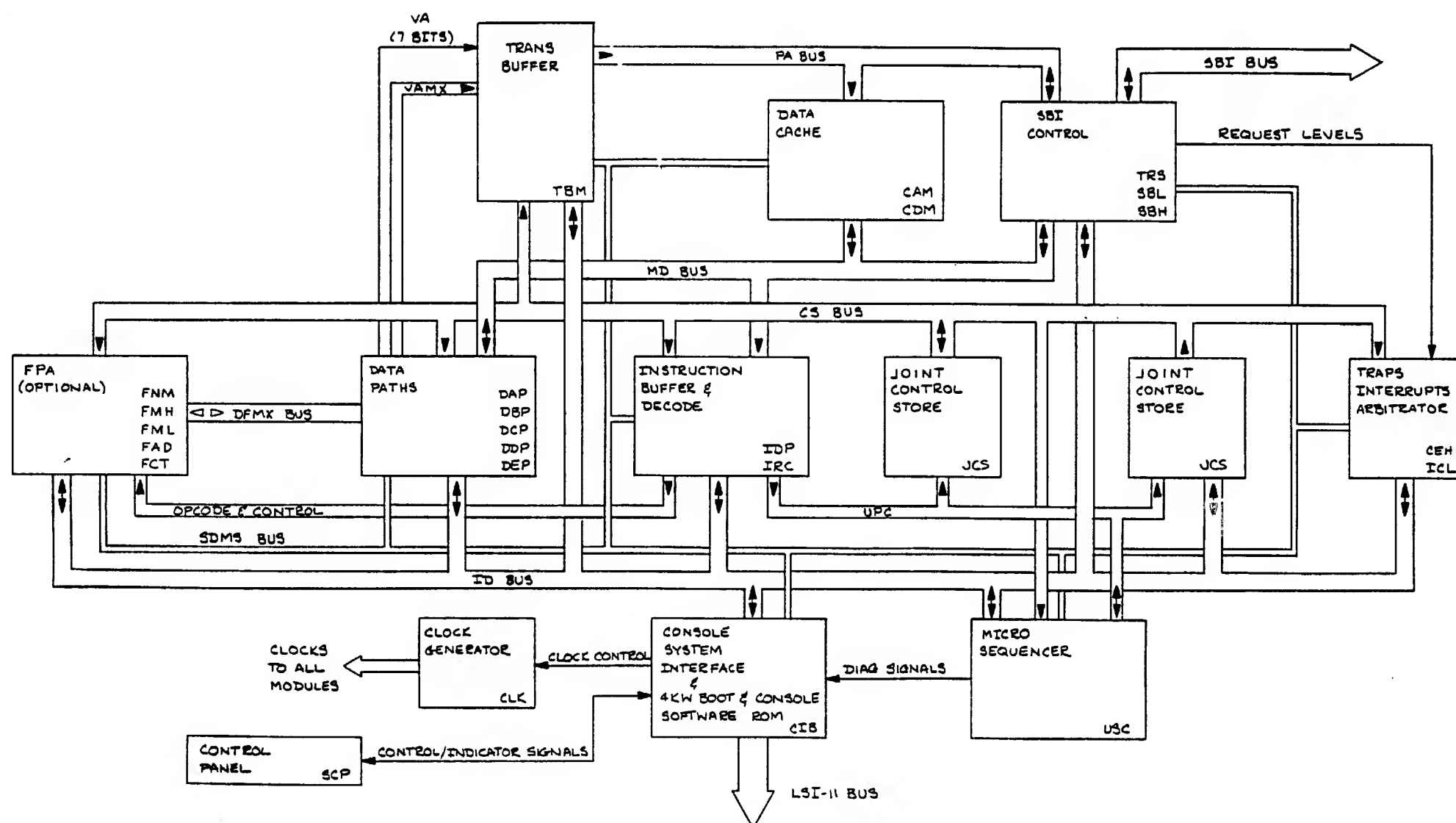
| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN | DESCRIPTION                      | QTY PER VARIATION |                 |
|------|------|------------------|-------------|-----|----------------------------------|-------------------|-----------------|
|      |      |                  |             | REV |                                  | AA                | A8              |
|      |      |                  |             |     |                                  | VARIATION         | REVISION LEVEL: |
|      |      |                  |             |     |                                  | 00                | 00              |
| 31   | 31   | D-1A-7014212-0-0 | 7014212-2M  |     | CABLE AC DC LOW                  | 2                 | 2               |
| 32   | 32   | D-1A-7014249-0-0 | 7014249-0L  |     | CABLE POWER BLACK                | 1                 | 1               |
| 33   | 33   | D-1A-7014249-0-0 | 7014249-1C  |     | CABLE POWER                      | 2                 | 2               |
| 34   | 34   | D-1A-7014249-0-0 | 7014249-1J  |     | CABLE POWER                      | 4                 | 4               |
| 35   | 35   | BLANK            |             |     | *** THIS ITEM IS NOT USED ***    | -                 | -               |
| 36   | 36   | D-1A-7014530-0-0 | 7014530-1A  |     | CABLE POWER RED                  | 2                 | 2               |
| 37   | 37   | D-1A-7014530-0-0 | 7014530-1E  |     | CABLE POWER RED                  | 4                 | 4               |
| 38   | 38   | E-AD-7014956-0-0 | 7014956-00  |     | UDA OPTION SUPPLY                | 1                 | -               |
| 39   | 39   | E-AD-7014956-0-0 | 7014956-01  |     | UBA OPTION SUPPLY 50HZ           | -                 | 1               |
| 40   | 40   | E-1A-7015073-0-0 | 7015073-00  |     | HARNESS MINUS 5V TERMINATOR      | 1                 | 1               |
| 41   | 41   | E-1A-7020579-0-0 | 7020579-01  |     | BACKPLANE ASSY (CPU)             | 1                 | 1               |
| 42   | 42   | B-MD-7418902-0-0 | 7418902-00  |     | STUD PLATE BUS BAR ADAPTER       | 6                 | 6               |
| 43   | 43   | B-MD-7418903-0-0 | 7418903-00  |     | U-BAR                            | 3                 | 3               |
| 44   | 44   | C-MD-7418904-0-0 | 7418904-00  |     | PLATE, SLOTTED                   | 1                 | 1               |
| 45   | 45   | C-MD-7419458-0-0 | 7419458-00  |     | COVER, C.P.U. BACKPLANE          | 1                 | 1               |
| 46   | 46   | B-MD-7419483-0-0 | 7419483-00  |     | COVER BUS BAR CPU                | 1                 | 1               |
| 47   | 47   |                  | 9006043-01  |     | SCREW,MACH PAN PHIL 8-           | 6                 | 6               |
| 48   | 48   |                  | 9006073-01  |     | SCREW,MACH PAN PHIL 10-          | 16                | 16              |
| 49   | 49   |                  | 9006563-00  |     | NUT,HEX EXT TOOTH LCKWSHR 8-32   | 6                 | 6               |
| 50   | 50   |                  | 9006565-00  |     | NUT,HEX EXT TOOTH LCKWSHR 10-32  | 24                | 24              |
| 51   | 51   |                  | 9006610-00  |     | NUT,CAP,RELOCK 10-32X .43BAF NYL | 24                | 24              |
| 52   | 52   |                  | 9006655-00  |     | WASHER,FLAT SST                  | 12                | 12              |
| 53   | 53   |                  | 9006660-00  |     | WASHER,FLAT SST                  | 6                 | 6               |
| 54   | 54   |                  | 9007906-00  |     | WASHER,HELICAL SPLIT STEEL       | 16                | 16              |
| 55   | 55   |                  | 9008032-01  |     | SCREW,MACH PAN PHIL 4-           | 12                | 12              |

|               |       |                   |                |      |      |                 |     |
|---------------|-------|-------------------|----------------|------|------|-----------------|-----|
| D I G I T A L | TITLE | CPU ASSY. (KA785) | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|               |       |                   |                | K    | PL   | KA785-0-D8P     | 8   |



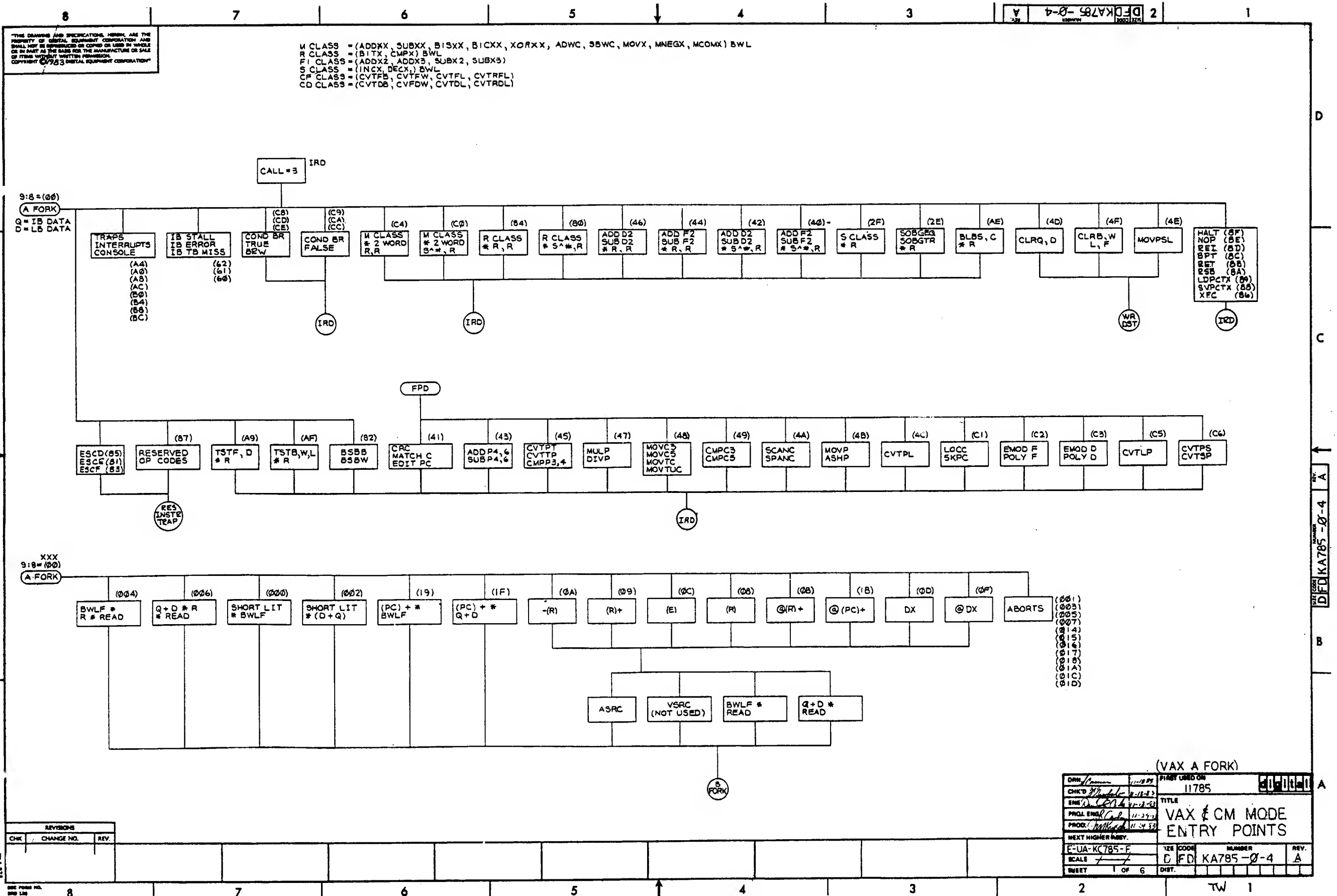
THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF THE UNITED STATES GOVERNMENT AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF THE SECRETARY OF DEFENSE.

11785-0-3

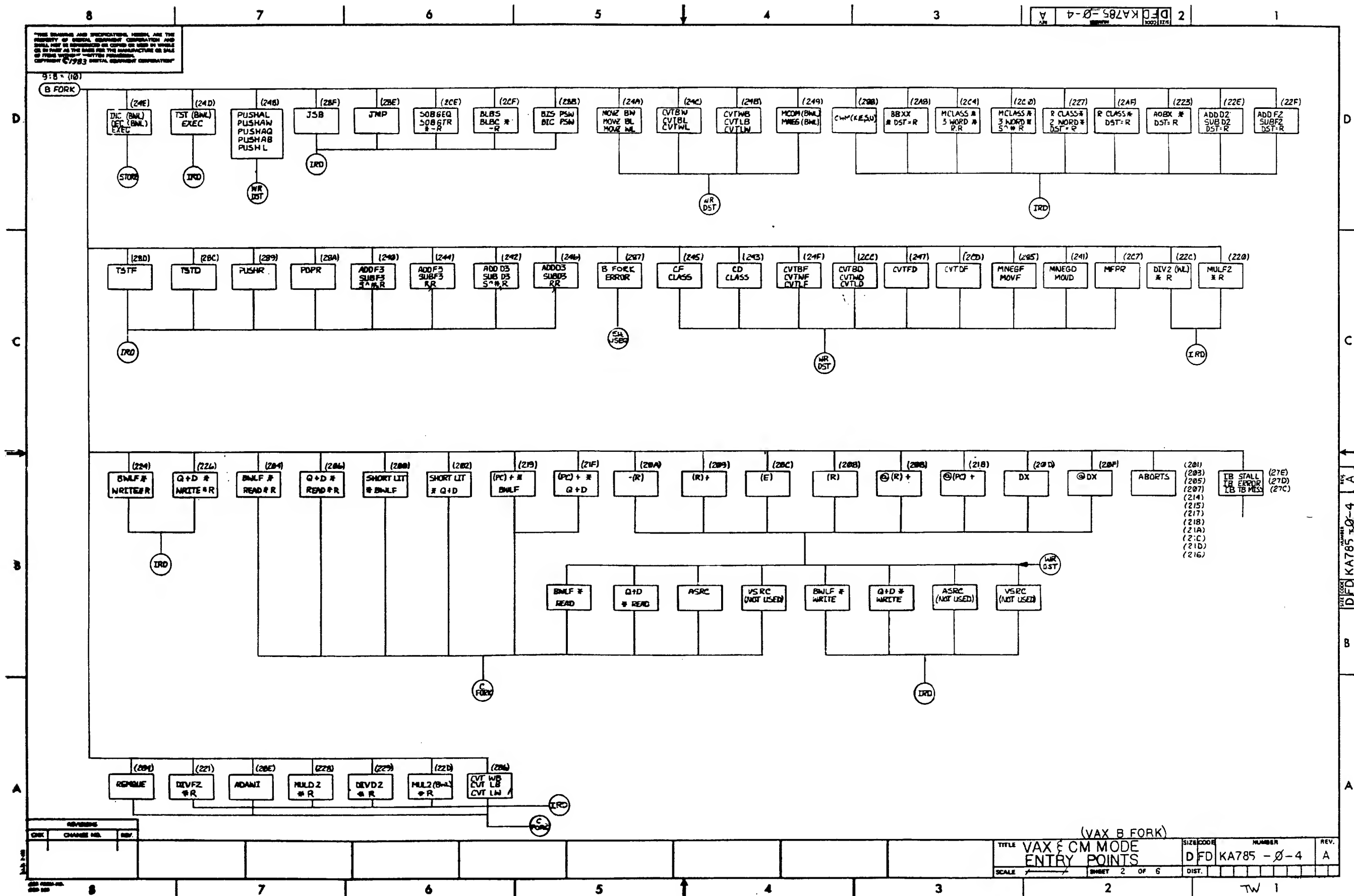


|                      |           |               |                          |
|----------------------|-----------|---------------|--------------------------|
| DRN.                 | 11785-0-3 | FIRST USED ON | 11785                    |
| CHK'D BY             | 11-11-83  | TITLE         | CPU SYSTEM BLOCK DIAGRAM |
| ENGR'D BY            | 11-11-83  | NUMBER        | KA785-0-3                |
| PROL. ENG. BY        | 11-11-83  | REV.          | A                        |
| PROD. BY             | 11-11-83  | SCALE         | 1/1                      |
| NEXT HIGHER ASSEMBLY |           | SHEET         | 1 OF 1                   |
| E:UA-KC785-F         |           | DIST.         |                          |

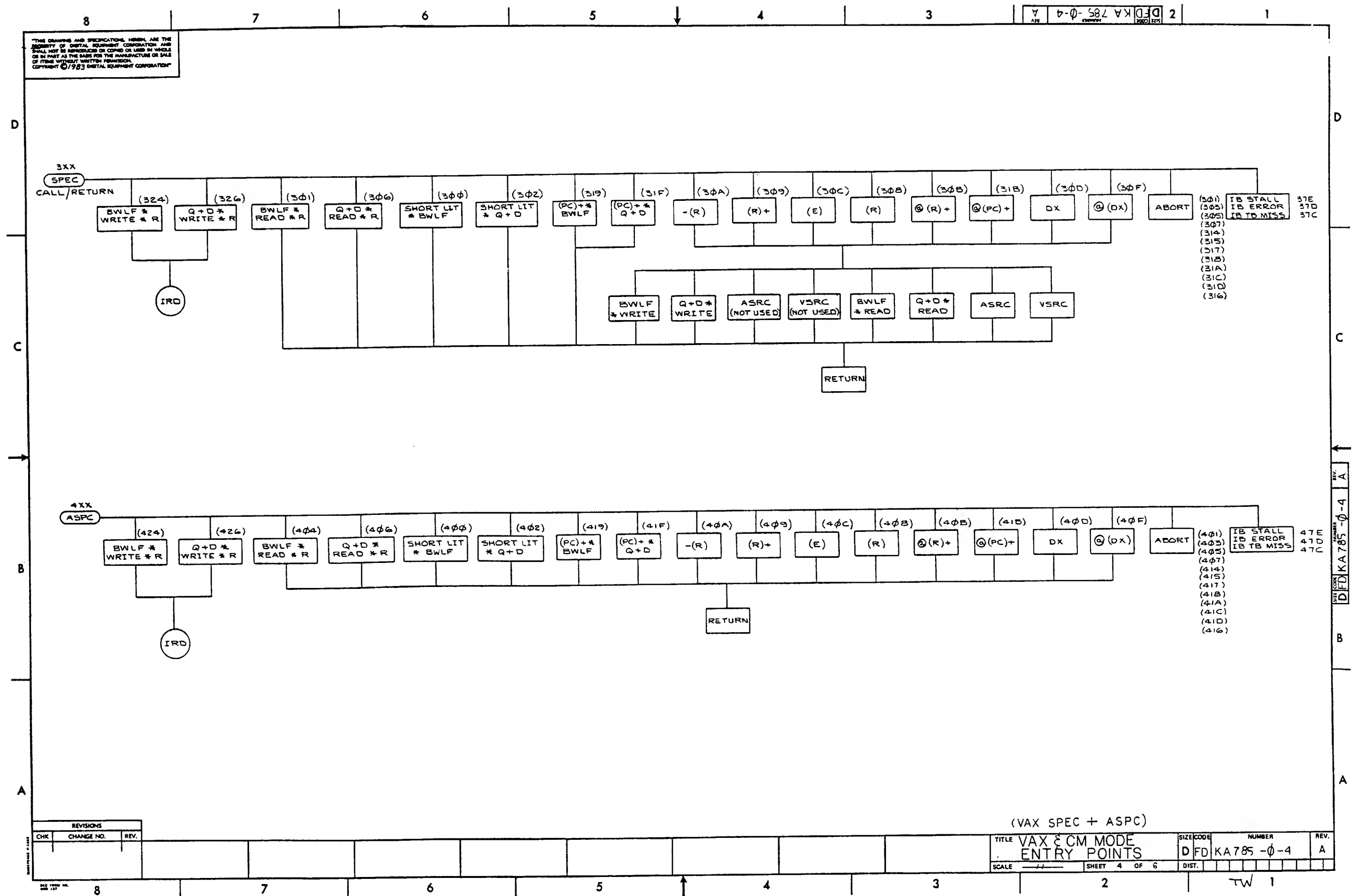
TW 1



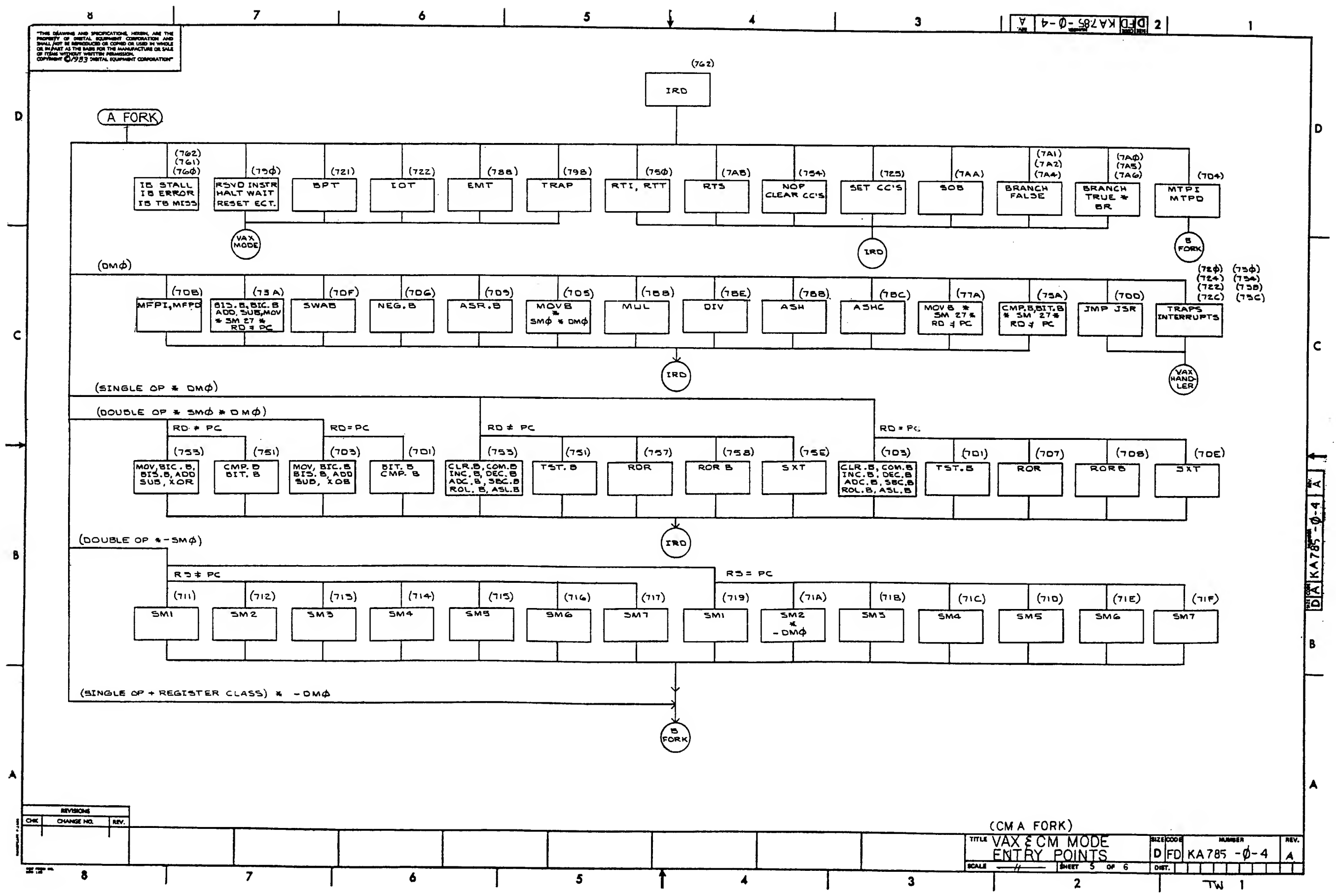








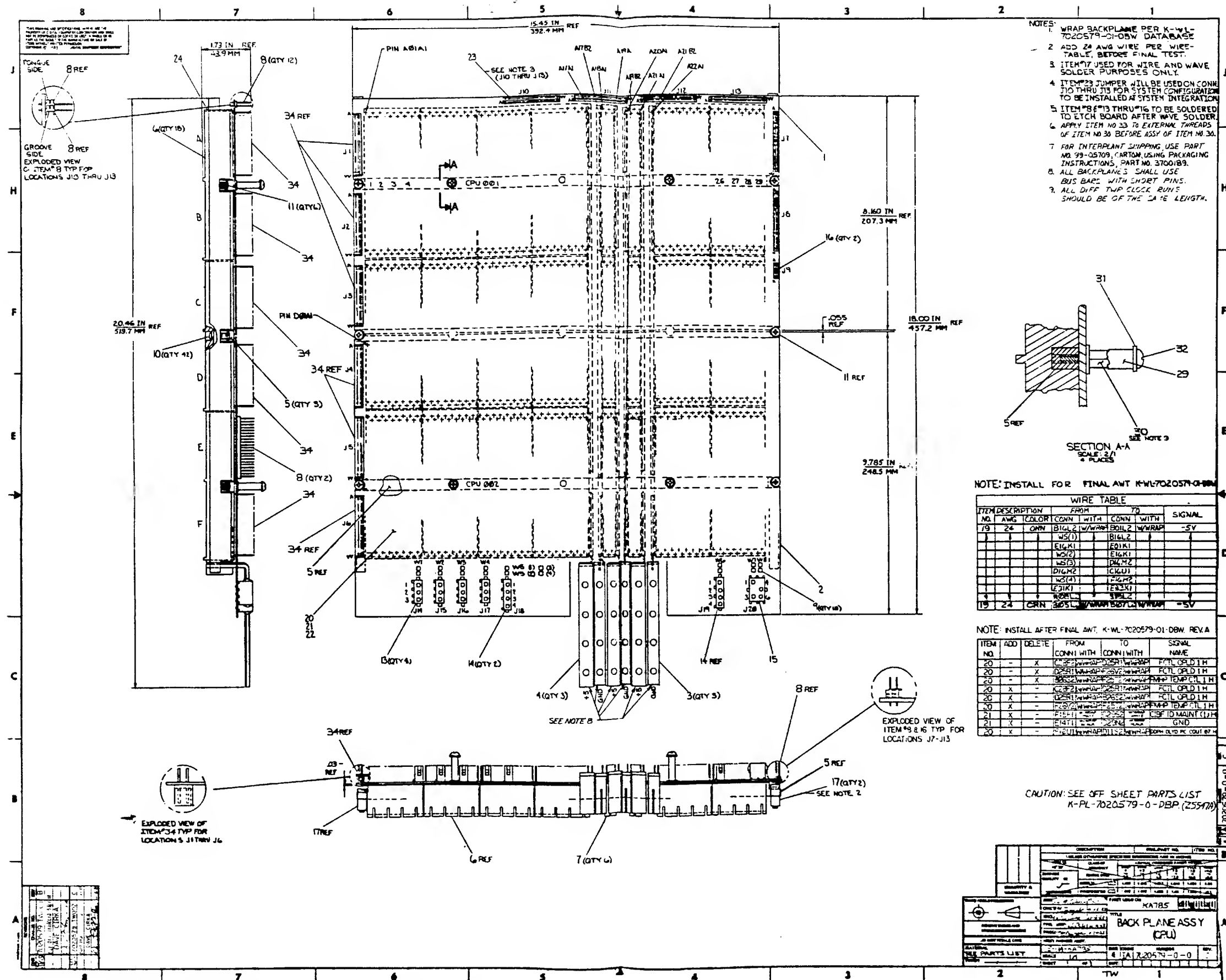
THE DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION

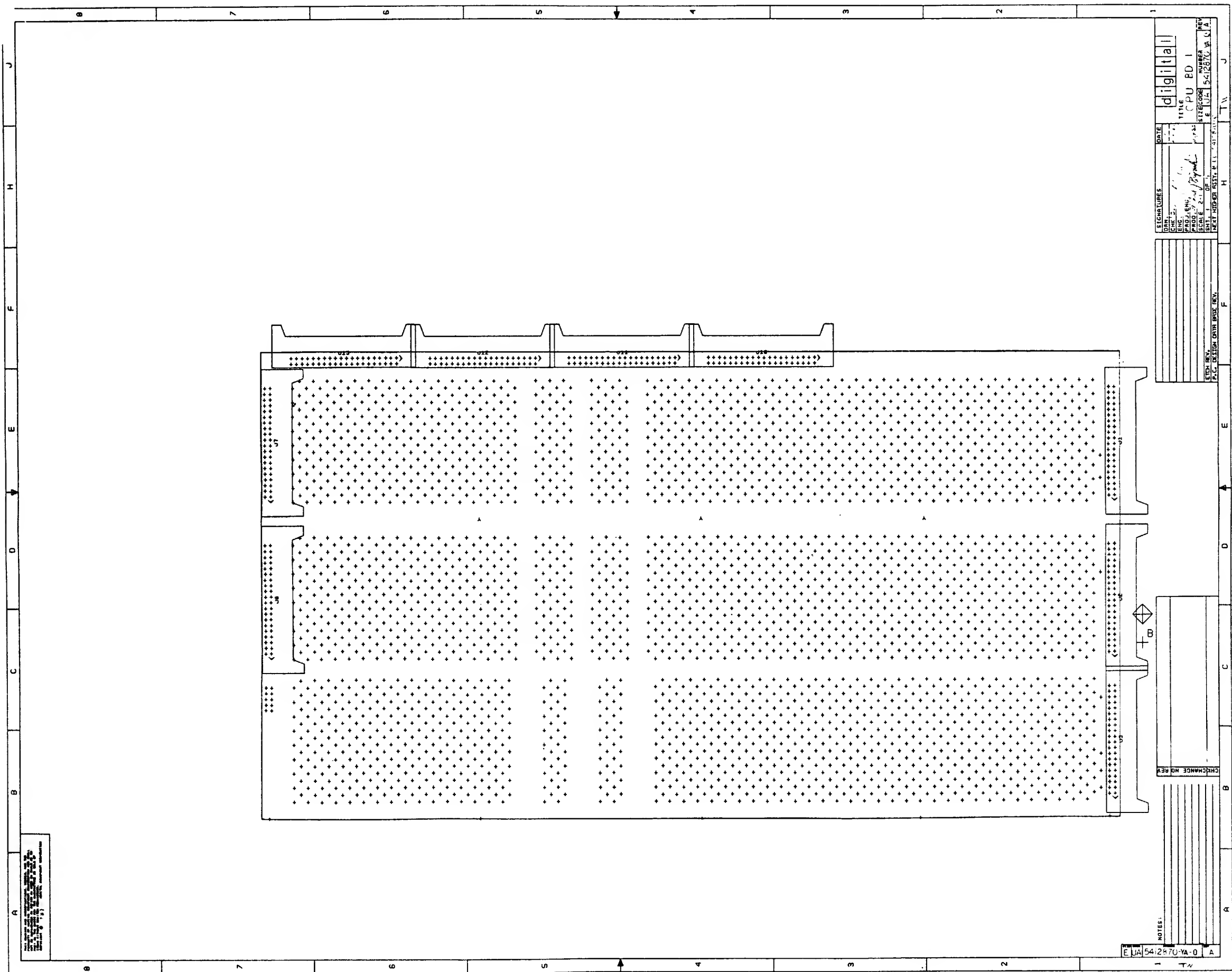


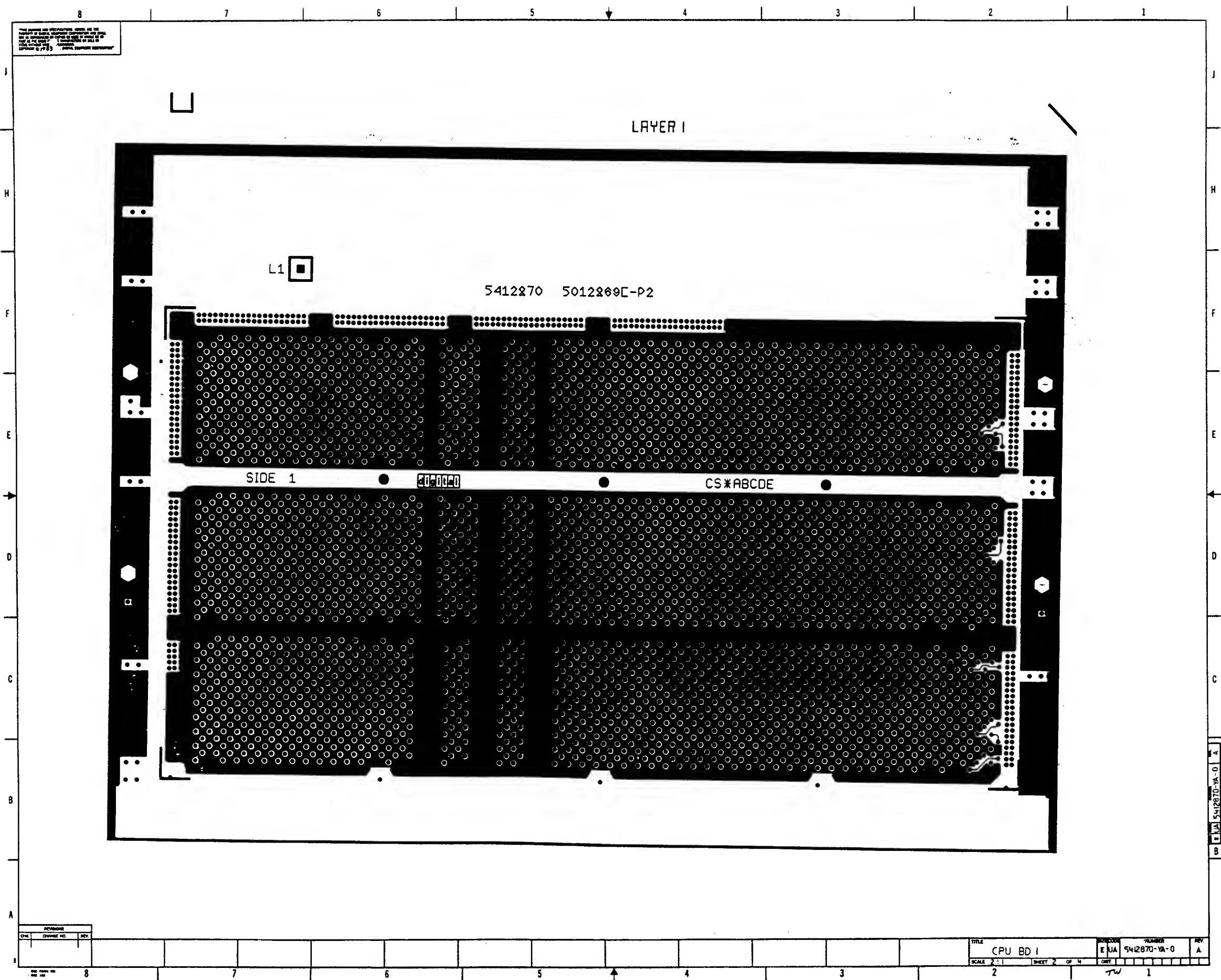
| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |
|           |            |      |

|       |  |                              |  |           |              |      |
|-------|--|------------------------------|--|-----------|--------------|------|
| TITLE |  | VAX-11/780 MODE ENTRY POINTS |  | SIZE/CODE | NUMBER       | REV. |
| SCALE |  | SHEET 5 OF 6                 |  | DIST.     | KA 785 - 0-4 | A    |







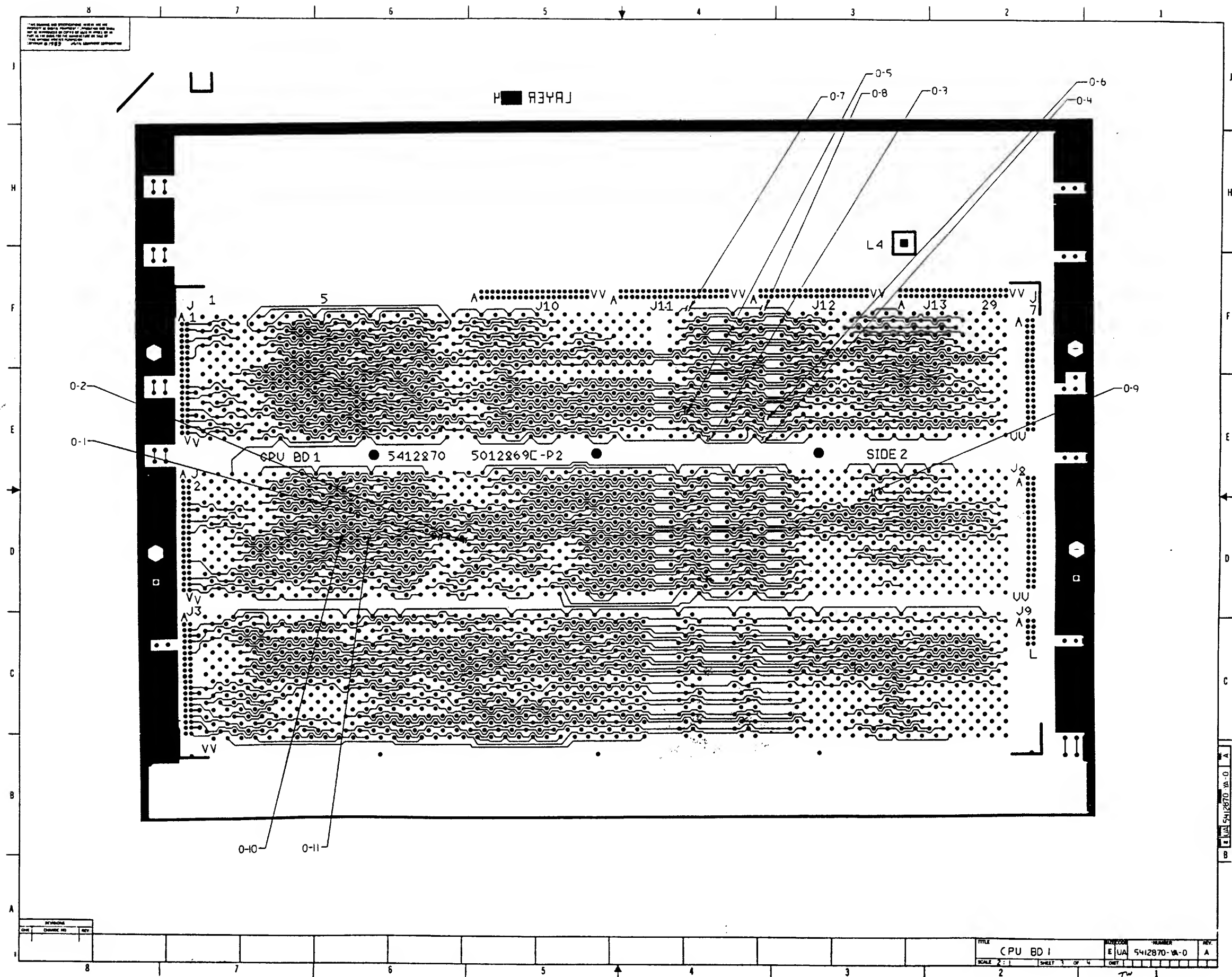


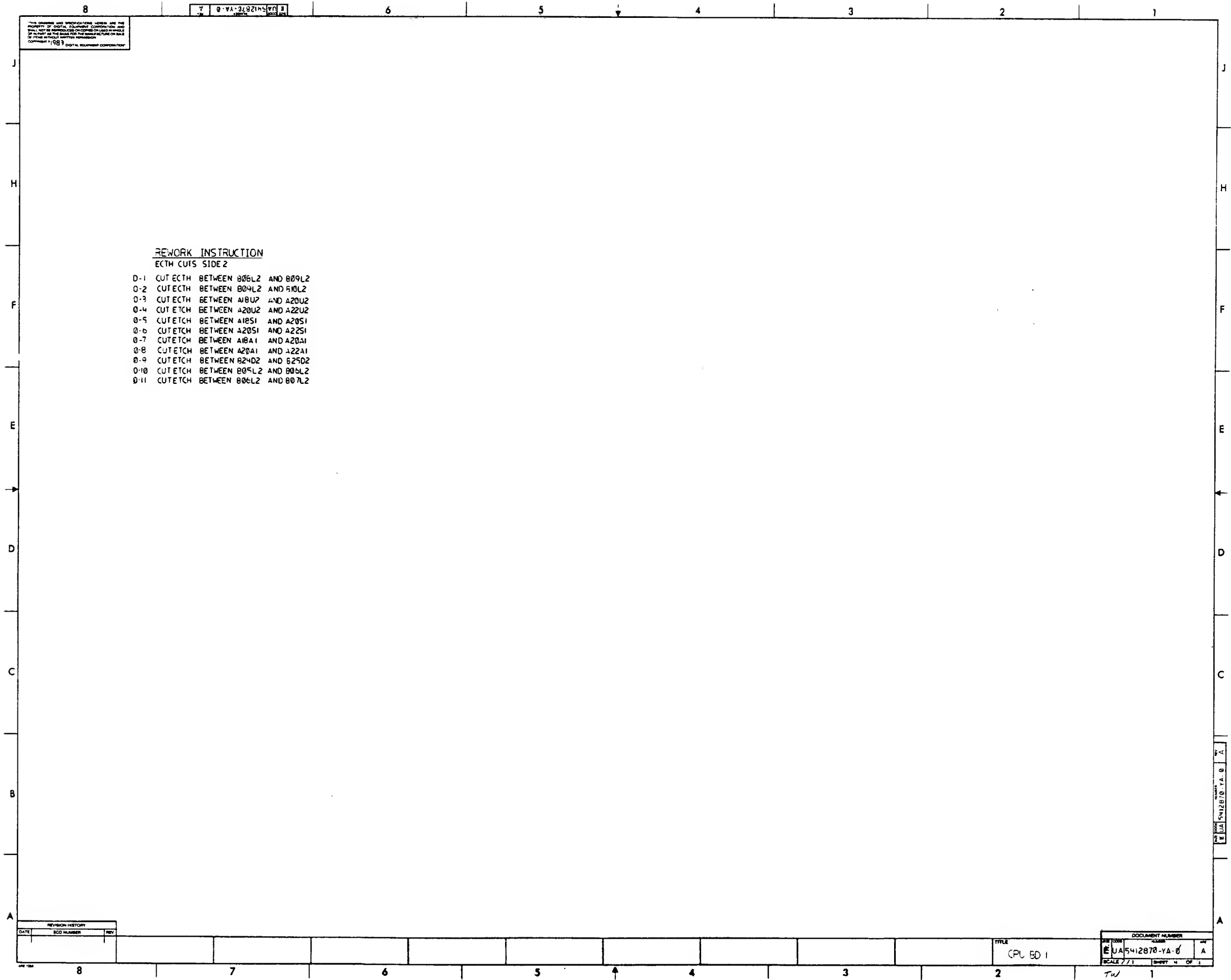
THIS DRAWING IS UNCLASSIFIED, EXCEPT WHERE SHOWN OTHERWISE, AND IS NOT TO BE RELEASED OR DISCLOSED TO THE PUBLIC OR TO ANY OTHER ENTITY WITHOUT THE WRITTEN AUTHORIZATION OF THE SECRETARY OF DEFENSE.

| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |
|           |            |      |

|           |              |                |              |      |
|-----------|--------------|----------------|--------------|------|
| TITLE     |              | DRAWING NUMBER |              | REV. |
| CPU BD 1  |              | EUA            | 5412870-VA-0 | A    |
| SCALE 2:1 | SHEET 2 OF 4 |                | CMT.         |      |
| 2         | TW           |                | 1            |      |







THIS DRAWING AND SPECIFICATIONS HEREBY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE RECONSTRUCTION OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION  
COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION

REWORK INSTRUCTION  
ETCH CUTS SIDE 2

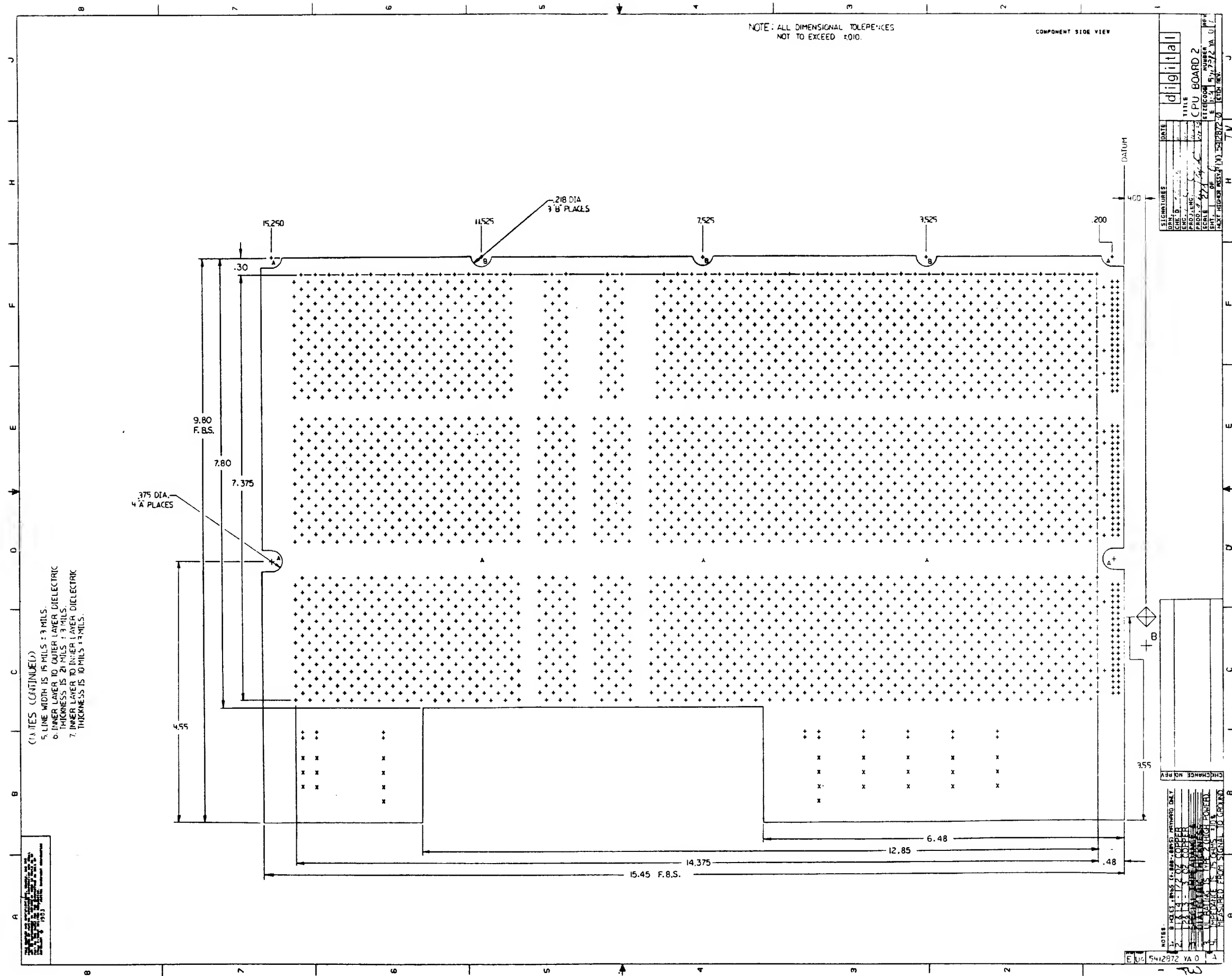
- D-1 CUT ETCH BETWEEN 806L2 AND 809L2
- D-2 CUT ETCH BETWEEN 809L2 AND 810L2
- D-3 CUT ETCH BETWEEN A18U2 AND A20U2
- D-4 CUT ETCH BETWEEN A20U2 AND A22U2
- D-5 CUT ETCH BETWEEN A18S1 AND A20S1
- D-6 CUT ETCH BETWEEN A20S1 AND A22S1
- D-7 CUT ETCH BETWEEN A18A1 AND A20A1
- D-8 CUT ETCH BETWEEN A20A1 AND A22A1
- D-9 CUT ETCH BETWEEN 824D2 AND 825D2
- D-10 CUT ETCH BETWEEN 806L2 AND 806L2
- D-11 CUT ETCH BETWEEN 806L2 AND 807L2

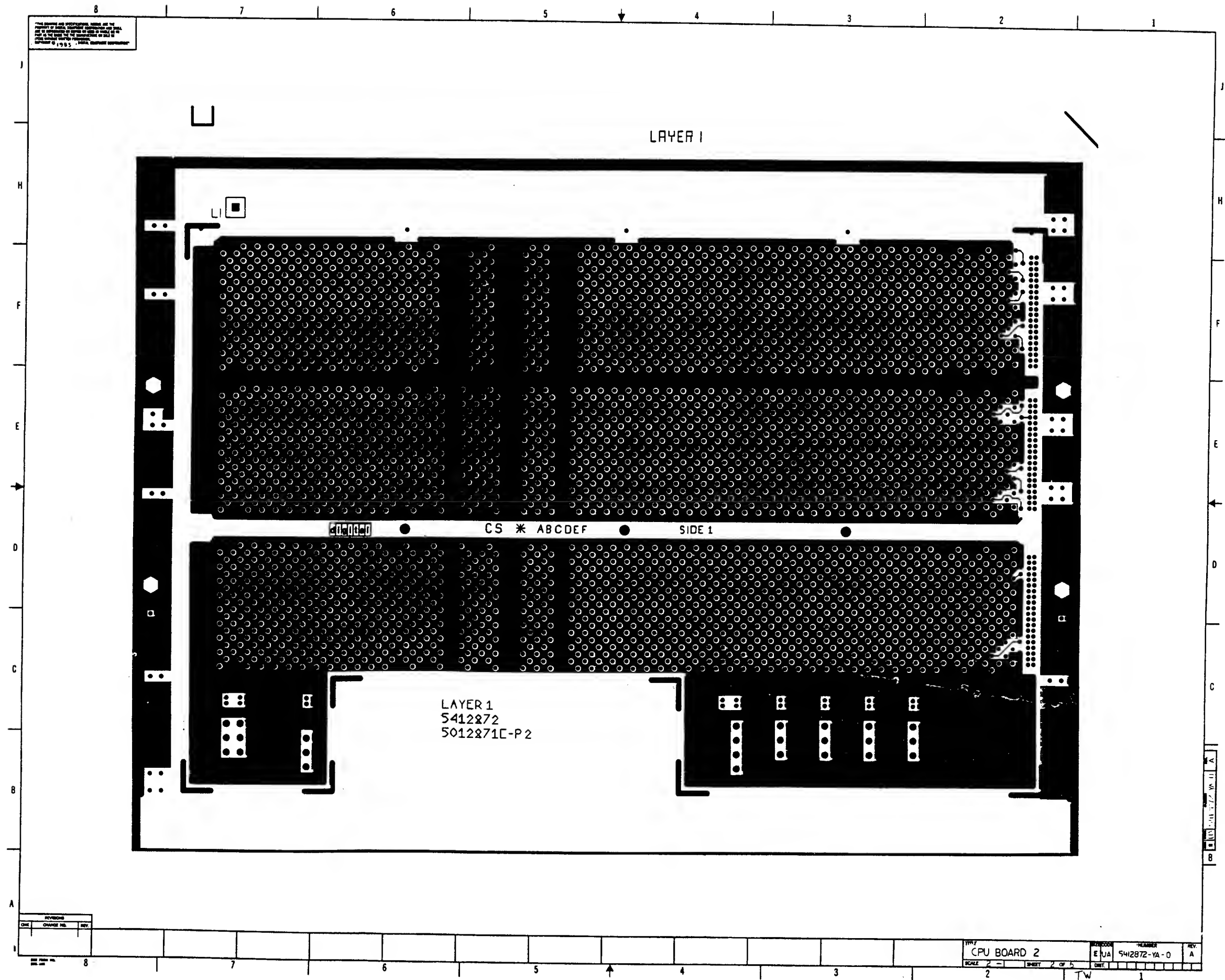
| REVISION HISTORY |            |     |
|------------------|------------|-----|
| DATE             | ECO NUMBER | REV |
|                  |            |     |

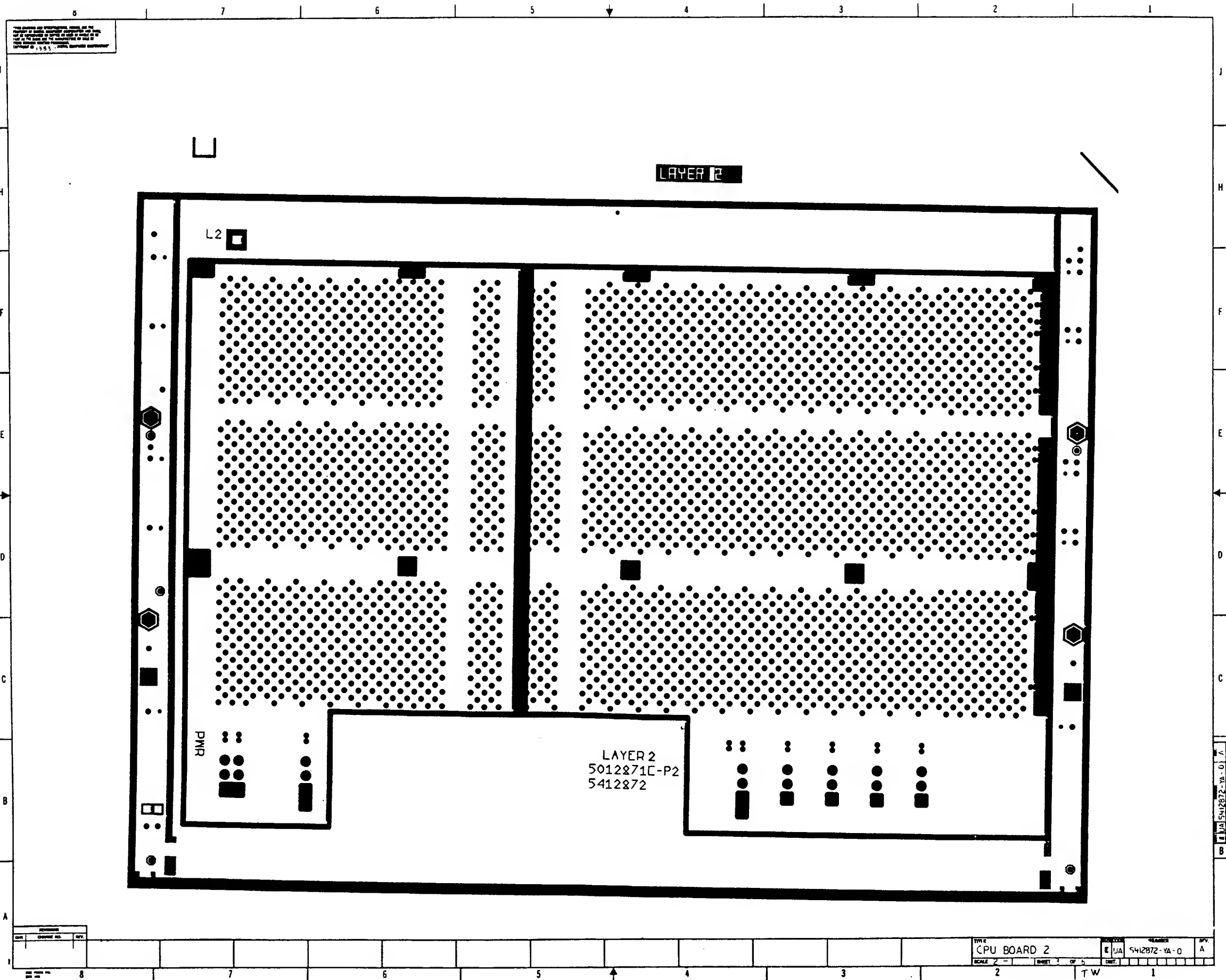
TITLE  
CPU BD 1

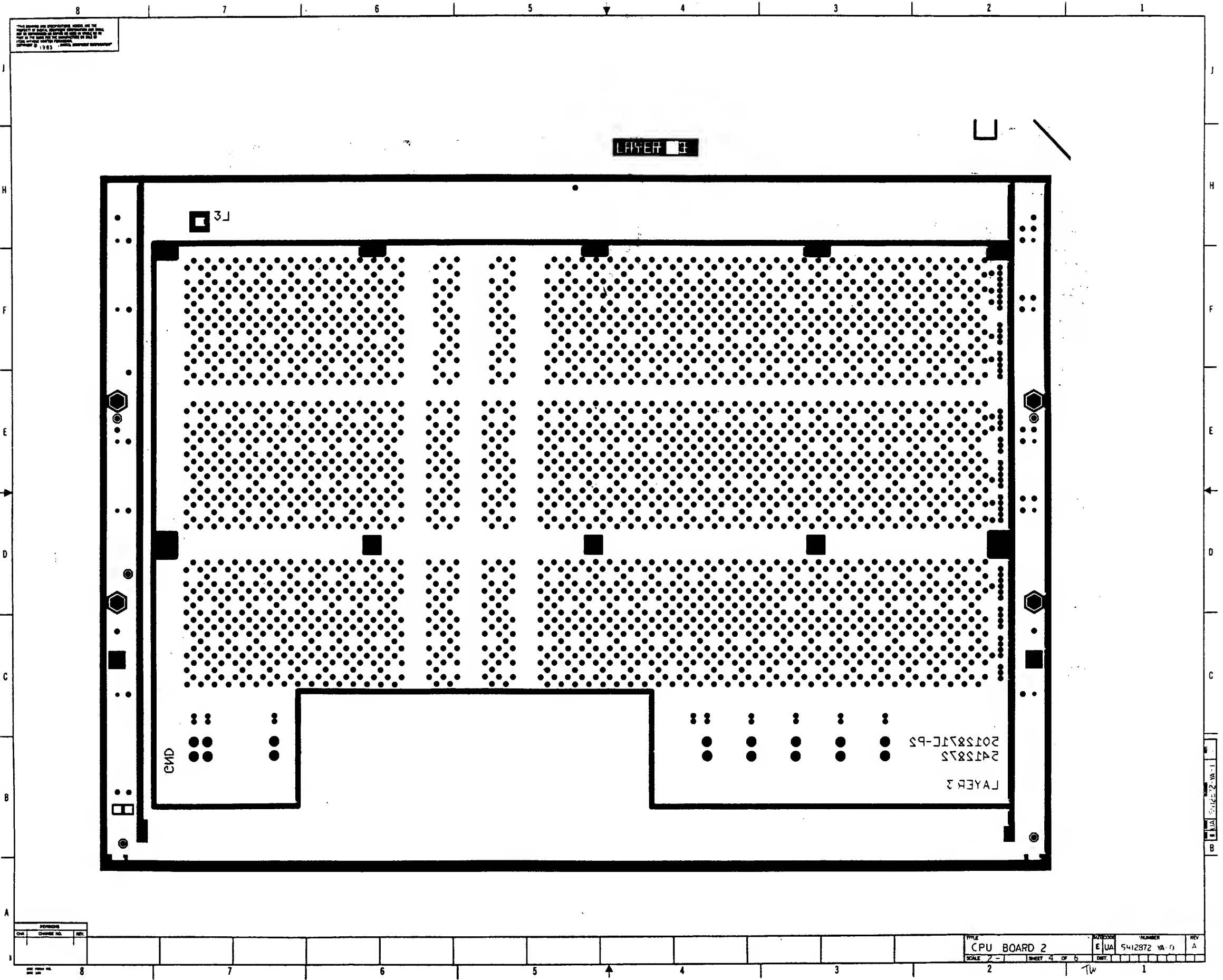
| DOCUMENT NUMBER |  |
|-----------------|--|
|                 |  |
|                 |  |

5412870-YA-8  
A





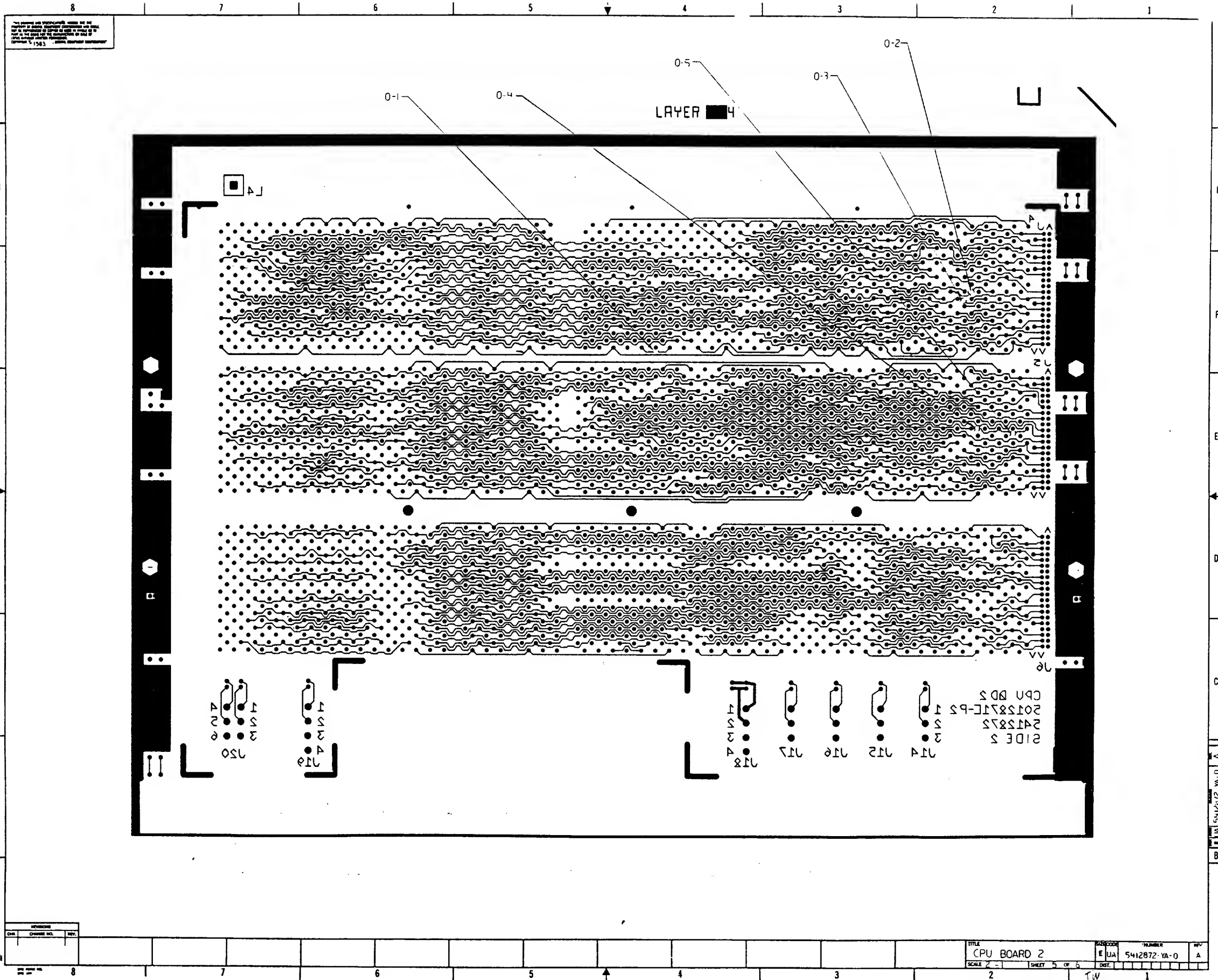




THIS DRAWING IS THE PROPERTY OF THE  
UNITED STATES GOVERNMENT. IT IS  
MADE AVAILABLE TO THE PUBLIC IN FULL  
AND IS NOT TO BE REPRODUCED OR  
TRANSMITTED IN ANY FORM OR BY ANY  
MEANS, ELECTRONIC OR MECHANICAL,  
INCLUDING PHOTOCOPYING, RECORDING,  
OR BY ANY INFORMATION STORAGE  
RETRIEVAL SYSTEM, WITHOUT PERMISSION  
IN WRITING FROM THE NATIONAL ARCHIVES  
ADMINISTRATIVE SERVICE CENTER  
COLLEGE PARK, MARYLAND 20740-6001

| REVISIONS |             |
|-----------|-------------|
| NO.       | DESCRIPTION |
| 1         | ORIGINAL    |

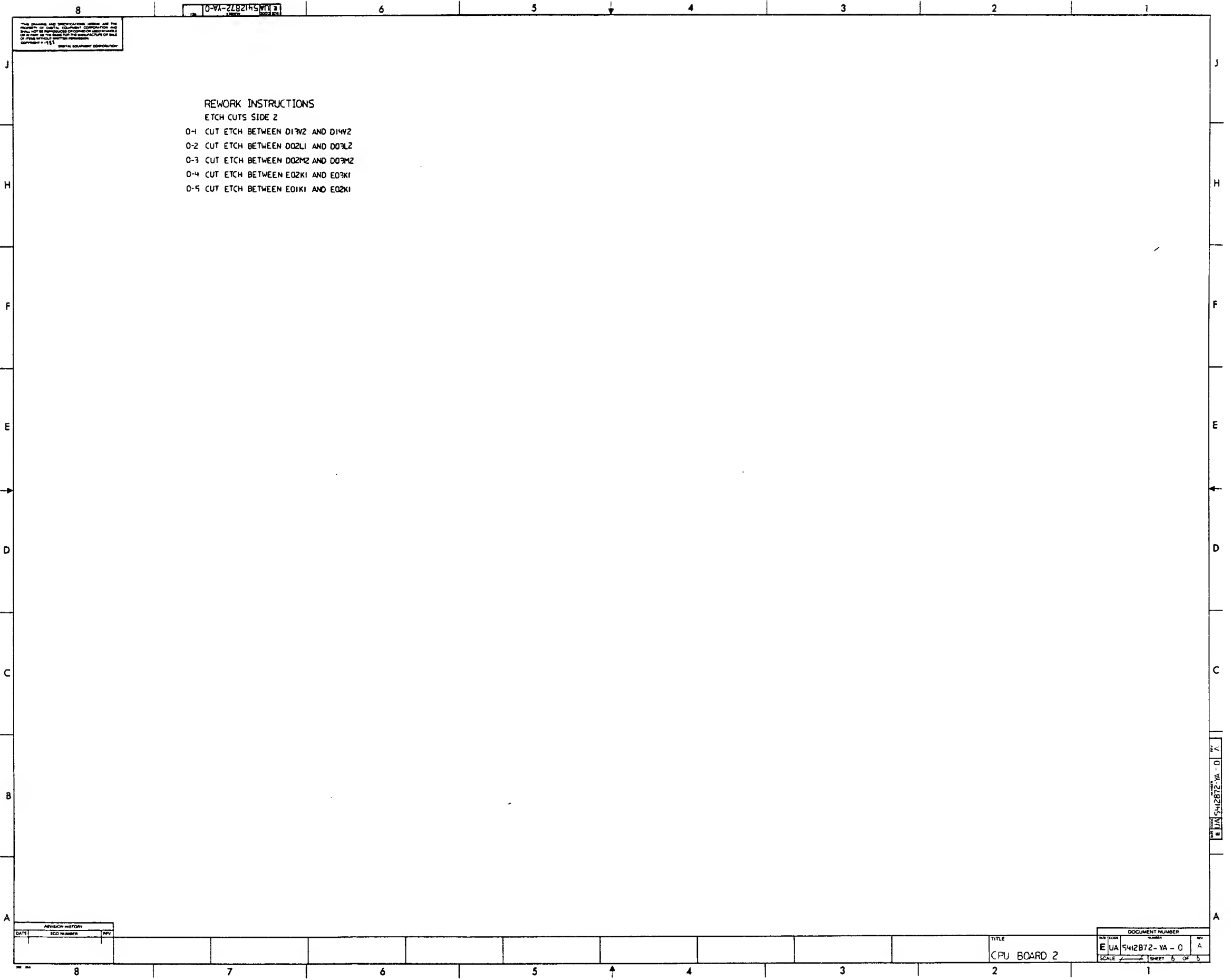
| TITLE       |       | NUMBER |              | REV  |
|-------------|-------|--------|--------------|------|
| CPU BOARD 2 |       | EUA    | 5412972 VA-0 | A    |
| SCALE       | 2 - 1 | SHEET  | 4 OF 5       | DATE |



THE BOARD AND COMPONENTS ARE NOT TO BE USED IN ANY MANNER OTHER THAN THAT SPECIFIED IN THE DRAWING. THE BOARD IS NOT TO BE USED IN ANY MANNER OTHER THAN THAT SPECIFIED IN THE DRAWING.

| REV. | CHG. | DATE | BY |
|------|------|------|----|
| 1    |      |      |    |

|       |             |          |     |        |              |       |   |
|-------|-------------|----------|-----|--------|--------------|-------|---|
| TITLE | CPU BOARD 2 | DESIGNER | EUA | NUMBER | 5412872-YA-0 | REV.  | A |
| SCALE | 2-1         | SHEET    | 5   | OF     | 5            | DIST. |   |



THIS DRAWING AND SPECIFICATIONS HEREBY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF THIS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1985 DIGITAL EQUIPMENT CORPORATION

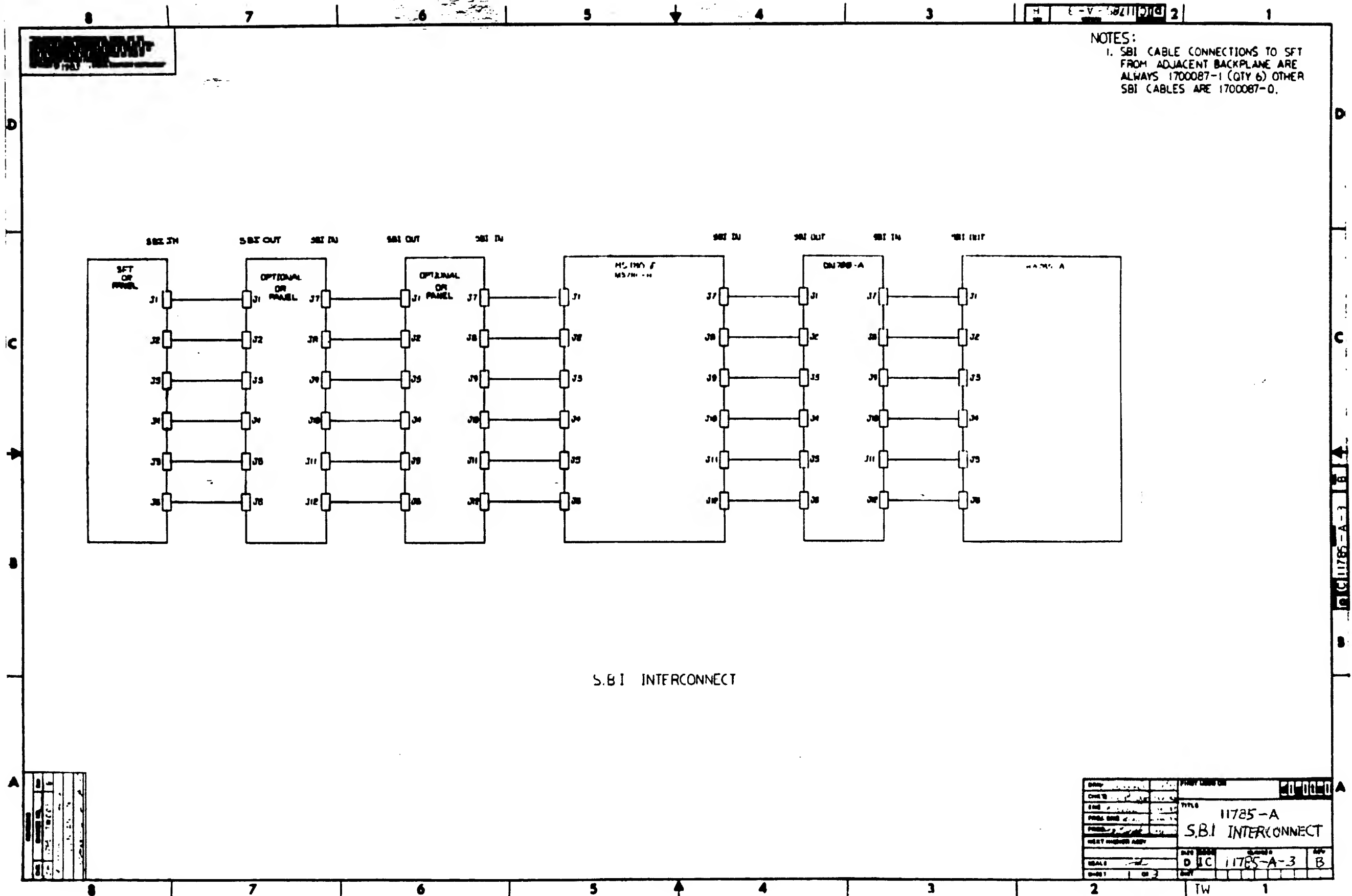
0-VA-228215-01

REWORK INSTRUCTIONS  
ETCH CUTS SIDE 2  
0-1 CUT ETCH BETWEEN D13V2 AND D14V2  
0-2 CUT ETCH BETWEEN D02L1 AND D03L2  
0-3 CUT ETCH BETWEEN D02M2 AND D03M2  
0-4 CUT ETCH BETWEEN E02K1 AND E03K1  
0-5 CUT ETCH BETWEEN E01K1 AND E02K1

| REVISION HISTORY |            |     |
|------------------|------------|-----|
| DATE             | ECO NUMBER | REV |
|                  |            |     |

| TITLE         |  | DOCUMENT NUMBER |              |
|---------------|--|-----------------|--------------|
| CPU BOARD 2   |  | EUA             | 5412872-VA-0 |
| SCALE 1" = 1" |  | SHEET 5 OF 5    |              |



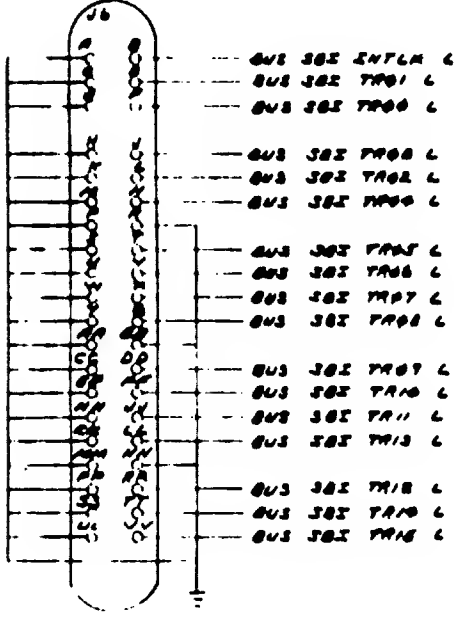
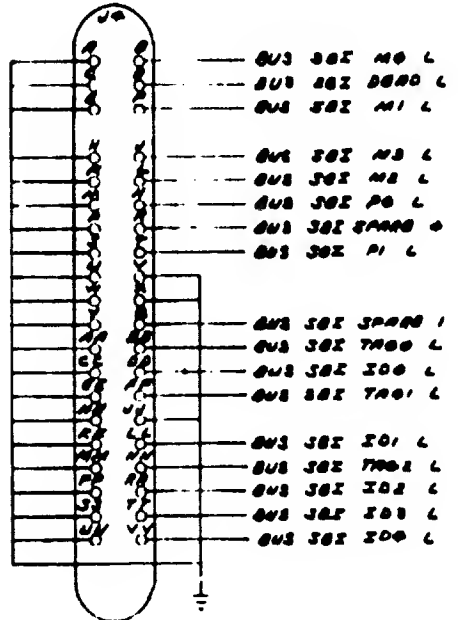
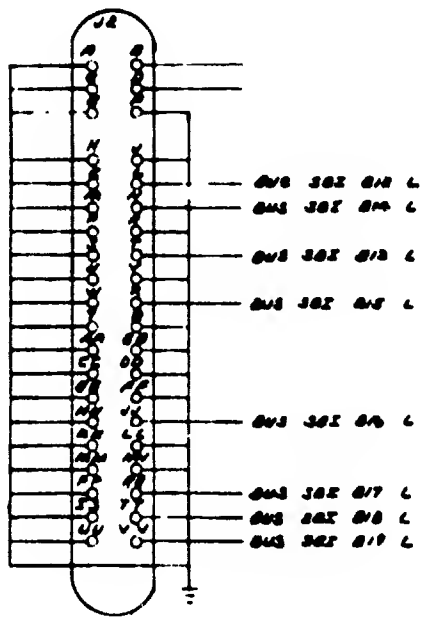
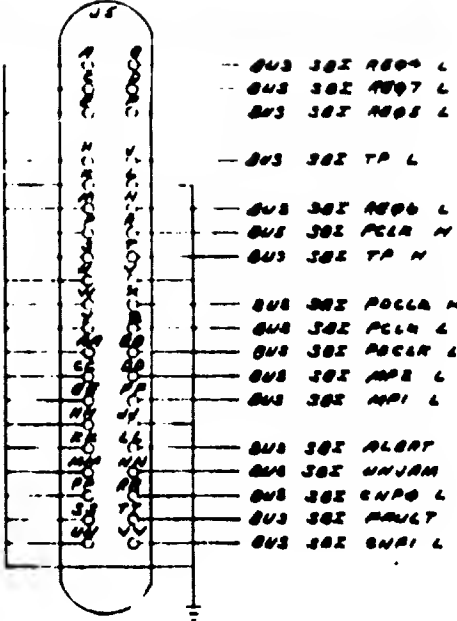
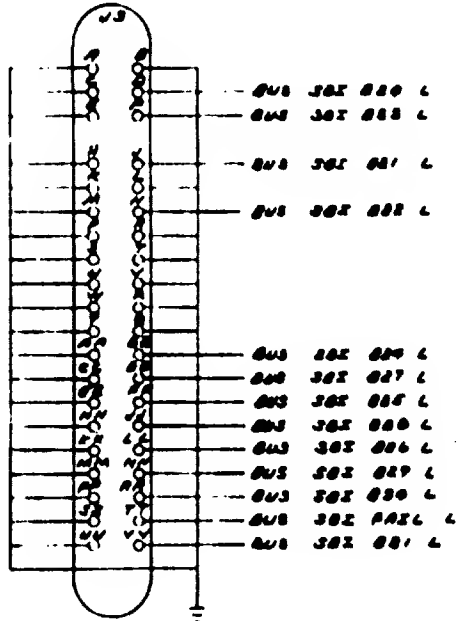
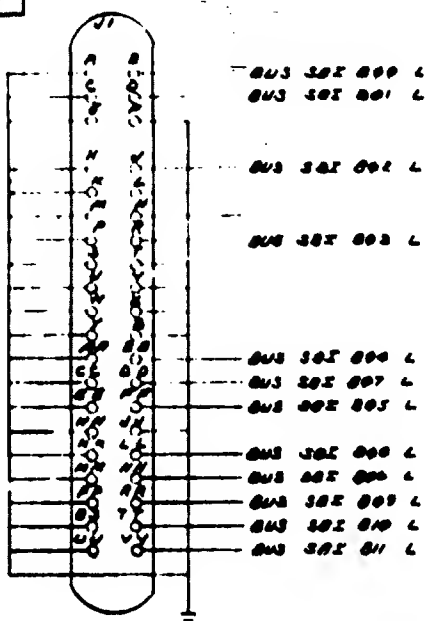


NOTES:  
 1. SBI CABLE CONNECTIONS TO SFT FROM ADJACENT BACKPLANE ARE ALWAYS 1700087-1 (QTY 6) OTHER SBI CABLES ARE 1700087-0.

|               |               |               |                    |
|---------------|---------------|---------------|--------------------|
| Drawn         | Checked       | Approved      | 10-00-00           |
| DATE          | DATE          | DATE          | DATE               |
| PROJ. ENG.    | PROJ. ENG.    | PROJ. ENG.    | PROJ. ENG.         |
| TEST ENGINEER | TEST ENGINEER | TEST ENGINEER | TEST ENGINEER      |
| TITLE         |               |               | 11785-A            |
| SUBTITLE      |               |               | S.B.I INTERCONNECT |
| SCALE         | DATE          | BY            | 11785-A-3          |
| REV           | DATE          | BY            | B                  |



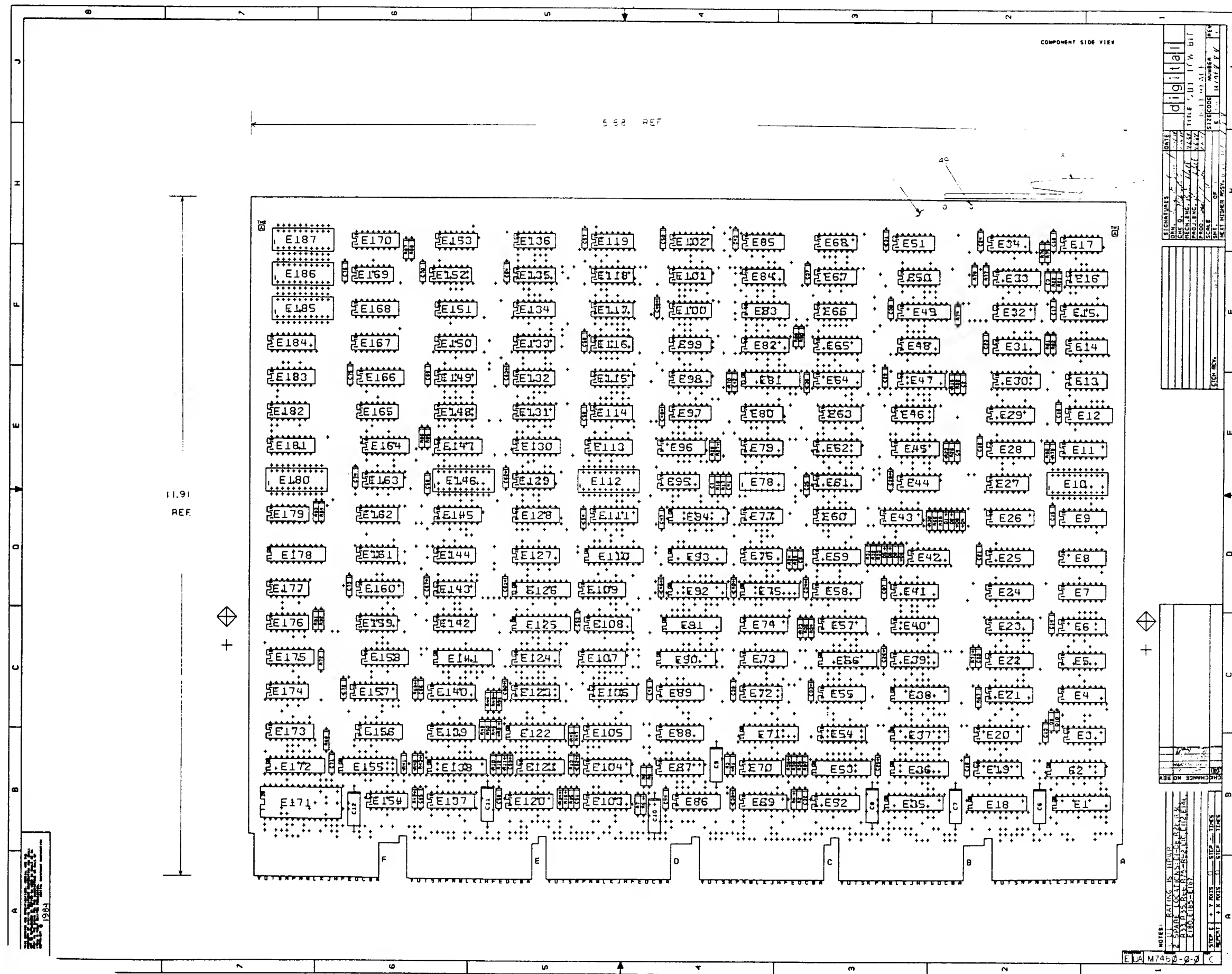
11785-A-3



PIN DESIGNATIONS FOR "S.B.I. OUT" CONNECTORS

|                             |        |
|-----------------------------|--------|
| 11785-A S.B.I. INTERCONNECT |        |
| SCALE                       | 3 OF 3 |
| SHEET                       | 3      |
| TW 1                        |        |





AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A1 OF A2

| LINE                      | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                    | QTY | PER VARIATION | REFERENCE DESIGNATOR             |
|---------------------------|------|------------------|-------------|---------|--------------------------------|-----|---------------|----------------------------------|
| VARIATION REVISION LEVEL: |      |                  |             |         |                                | 00  |               |                                  |
| 1                         | 1    | E-MD-5016069-0-0 | 5016069-01  |         | INTERFACE LOW 8IT              | 1   |               |                                  |
| 2                         | 2    |                  | 1012784-00  |         | .047 MFD 50V +80-20% CER       | 69  |               | C1-C5,C13-C76                    |
| 3                         | 3    |                  | 1017472-00  |         | 10 MFD 35V +50-10% AL EL       | 7   |               | C6-C12                           |
| 4                         | 4    |                  | 1103041-00  |         | PIV= 8 IO= 50 MA               | 2   |               | D9,D10                           |
| 5                         | 5    |                  | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS | 1   |               |                                  |
| 6                         | 6    |                  | 1300202-00  |         | 47.0 .25 W 5.0 % CF            | 8   |               | R67-R74                          |
| 7                         | 7    |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF           | 16  |               | R3,R4,R7,R8,R11,R12,R15,R16,R38, |
| 8                         | 8    |                  | 1300295-00  |         | 330.0 .25 W 5.0 % CF           | 5   | CONT          | R39,R42,R43,R46,R47,R50,R51      |
| 9                         | 9    |                  | 1301424-00  |         | 680.0 .25 W 5.0 % CF           | 5   |               | R17,R19,R21,R23,R24              |
| 10                        | 10   |                  | 1302957-00  |         | 121.0 .25 W 1.0 % RN55D-F10    | 18  |               | R18,R20,R22,R25,R26              |
|                           |      |                  |             |         |                                |     | CONT          | R6,R34,R36,R37,R40,R41,R44,R45,  |
|                           |      |                  |             |         |                                |     | CONT          | R48,R49,R1,R2,R5,R9,R10,R13,R14, |
| 11                        | 11   |                  | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN      | 11  |               | R27                              |
| 12                        | 12   |                  | 1921307-01  |         | 74F04 HEX INVERTER             | 11  | CONT          | E27,E32,E34,E63,E67,E76,E99,     |
| 13                        | 13   |                  | 1921309-01  |         | 74F10 NAND GATE,TRIPLE,3-I     | 7   | CONT          | E132,E151,E165,E182              |
| 14                        | 14   |                  | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN     | 2   |               | E14,E46,E66,E77,E84,E119,E134,   |
| 15                        | 15   |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN      | 2   | CONT          | E150,E159,E161,E179              |
| 16                        | 16   |                  | 1910541-00  |         | 74S40 BUFFER,POS-NAND,DUAL     | 1   |               | E13,E48,E51,E115,E117,E142,E162  |
| 17                        | 17   |                  | 1921313-01  |         | 74F64 AND OR INVERT GATE,4-    | 12  |               | E100,E133                        |
|                           |      |                  |             |         |                                |     | CONT          | E44,E144                         |
| 18                        | 18   |                  | 1921314-01  |         | 74F74 FF-D,DUAL,POS.,EDGE      | 7   |               | E143                             |
| 19                        | 19   |                  | 1910545-00  |         | 74S112 FF-JK DUAL,EDGE TRIG    | 8   | CONT          | E50,E85,E95,E98,E101,E102,E116,  |
|                           |      |                  |             |         |                                |     | CONT          | E118,E135,E136,E153,E163         |
| 20                        | 20   |                  | 1921319-01  |         | 74F153 MUX,DUAL,4-IN           | 10  |               | E16,E17,E148,E149,E152,E169,E177 |
| 21                        | 21   |                  | 1921320-01  |         | 74F157 MUX,QUAD,2-IN           | 3   | CONT          | E28,E45,E47,E61,E62,E64,E130,    |
| 22                        | 22   |                  | 1921323-01  |         | 74F174 FF-D,HEX                | 7   |               | E147                             |
|                           |      |                  |             |         |                                |     | CONT          | E19,E20,E105-E107,E123,E124,     |
|                           |      |                  |             |         |                                |     |               | E127,E128,E145                   |
|                           |      |                  |             |         |                                |     |               | E54,E55,E88                      |
|                           |      |                  |             |         |                                |     |               | E6,E7,E23,E24,E39,E40,E111       |

| REVISION HISTORY |            |     | BASIC PART NO: M7460    |  | DRN: S.MANSOR      |  | DATE: 25-MAY-83      |  | D I G I T A L           |      |             |     |
|------------------|------------|-----|-------------------------|--|--------------------|--|----------------------|--|-------------------------|------|-------------|-----|
| ENG              | ECO NUMBER | REV | SECTION A OF A          |  | CHK'D: E.T.GERRY   |  | DATE: 26-MAY-83      |  | TITLE PARTS LIST        |      |             |     |
| ---              | INITIAL    | A   | SECTION VARIATION INDEX |  | DES.ENG: B.HALL    |  | DATE: 25-MAY-83      |  | DOCUMENT NUMBER         |      |             |     |
|                  |            |     | (A) 00                  |  | RESP.ENG.: B.HALL  |  | DATE: 8-AUG-83       |  | SIZE                    | CODE | NUMBER      | REV |
|                  |            |     | (B)                     |  | MFG.ENG.: M.KRYSAK |  | DATE: 8-AUG-83       |  | K                       | PL   | M7460-0-D8P | A   |
|                  |            |     | (C)                     |  | ASSEMBLY NUMBER:   |  | TOP DOCUMENT NUMBER: |  | RELEASE DATE: 12-OCT-83 |      |             |     |
|                  |            |     | (D)                     |  | E-UA-M7460-0-0     |  | B-DD-M7460-0-0       |  | FILE NAME: Z3942A.PLS   |      |             |     |
|                  |            |     | (E)                     |  |                    |  |                      |  | EDIT # 13               |      |             |     |
|                  |            |     | (F)                     |  |                    |  |                      |  |                         |      |             |     |
|                  |            |     | (G)                     |  |                    |  |                      |  |                         |      |             |     |
|                  |            |     | (H)                     |  |                    |  |                      |  |                         |      |             |     |
|                  |            |     | (I)                     |  |                    |  |                      |  |                         |      |             |     |
|                  |            |     | (J)                     |  |                    |  |                      |  |                         |      |             |     |
|                  |            |     | (K)                     |  |                    |  |                      |  |                         |      |             |     |
|                  |            |     | (L)                     |  |                    |  |                      |  |                         |      |             |     |
|                  |            |     | (M)                     |  |                    |  |                      |  |                         |      |             |     |
|                  |            |     | (N)                     |  |                    |  |                      |  |                         |      |             |     |

THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS.

AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A2 OF A2

| LINE                      | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                      | QTY PER VARIATION | REFERENCE DESIGNATOR  |
|---------------------------|------|--------------|-------------|---------|----------------------------------|-------------------|---|
| VARIATION REVISION LEVEL: |      |              |             |         |                                  | 00                |   |
| 23                        | 23   |              | 1921327-01  |         | 74F194 SHIFT REG,UNIV,8IDIR      | 9                 | E9,E12,E25,E26,E31,E58,E59,E113,E164                              |
| 24                        | 24   |              | 1921324-01  |         | 74F175 FF-D,QUAD                 | 15                | CONT E8,E11,E15,E33,E65,E82,E83,E96,E166-E168,E170,E181,E183,E184 |
| 25                        | 25   |              | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL QUA | 8                 | CONT E52,E69,E86,E103,E104,E120,E121,E137                         |
| 26                        | 26   |              | 1911469-00  |         | DEC 8640 RECEIVER,BUS,QUAD,U     | 1                 | E154  |
| 27                        | 27   |              | 1921332-01  |         | 74F280 PARITY GEN/CHECK,9-8      | 1                 | E3  |
| 28                        | 28   |              | 1921330-01  |         | 74F257 MUX,QUAD,2-IN             | 10                | CONT E4,E5,E22,E41,E57,E139,E156,E158,E173,E175                   |
| 29                        | 29   |              | 1921316-01  |         | 74F138 DECODER/DEMUX,1-OF-8      | 1                 | E160  |
| 30                        | 30   |              | 1911983-00  |         | 74S133 NAND GATE-POSITIVE 1      | 2                 | E108,E109   |
| 31                        | 31   |              | 1921315-01  |         | 74F86 EXCLUSIVE OR GATE,QU       | 1                 | E70   |
| 32                        | 32   |              | 1921306-01  |         | 74F02 NOR GATE,QUAD,2-IN         | 7                 | E42,E43,E80,E114,E131,E174,E176                                   |
| 33                        | 33   |              | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN         | 4                 | E60,E68,E97,E129  |
| 34                        | 34   |              | 1912731-00  |         | DEC 8646A TRANSCEIVER,4BIT BUS   | 4                 | E1,E2,E18,E35   |
| 35                        | 35   |              | 1912746-01  |         | 74S37-18BUFFER-GATE              | 2                 | E72,E79   |
| 36                        | 36   |              | 1912860-00  |         | LS259 LATCH 8BIT                 | 1                 | E21   |
| 37                        | 37   |              | 1912863-00  |         | LS273 FF-D OCTAL W/CLEAR         | 2                 | E125,E126   |
| 38                        | 38   |              | 1912872-00  |         | LS377 FF-D 8BIT W/ENABLE         | 4                 | E36,E53,E122,E141   |
| 39                        | 39   |              | 1921322-01  |         | 74F161 BINARY COUNTER,PREE       | 2                 | E29,E30   |
| 40                        | 40   |              | 1921010-01  |         | 74F373 OCTAL TRANSPARENT LA      | 8                 | CONT E37,E38,E71,E90,E93,E94,E110,E138                            |
| 41                        | 41   |              | 1920442-01  |         | 74F374 FF-D,OCTAL,TRI-STATE      | 4                 | E81,E155,E172,E178  |
| 42                        | 42   |              | 1913730-00  |         | DC 101 PRIORITY ARBITRATOR       | 1                 | E171  |
| 43                        | 43   |              | 1913788-00  |         | 26S10 TRANSCEIVER,BUS,QUA        | 4                 | E73,E74,E87,E89   |
| 44                        | 44   |              | 1921331-01  |         | 74F258 MUX,QUAD,2-IN             | 2                 | E140,E157   |
| 45                        | 45   |              | 1913888-00  |         | DC 102A EQUALS CHECKER 8BIT      | 2                 | E56,E75   |
| 46                        | 46   |              | 2303082-00  |         | 82-03                            | 1                 | E91   |
| 47                        | 47   |              | 2302982-00  |         | 82-03                            | 1                 | E92   |
| 48                        | 48   |              | 23E13F1-00  |         | F1-04                            | 1                 | E49   |
| 49                        | 49   |              | 9000024-01  |         | EYELET,ROLLED 0.1210DX0.192      | 12                |   |
| 50                        | 50   |              | 1302858-00  |         | 100.0 .25 W 1.0 % RN550-F10      | 3                 | R29,R31,R32   |
| 51                        | 51   |              | 9105740-55  |         | WIRE(WRAP) 30AWG KYNAR UL14      | A/R               |   |
| 52                        | 52   | BLANK        |             |         | *** THIS ITEM IS NOT USED ***    | -                 |   |
| 53                        | 53   | BLANK        |             |         | *** THIS ITEM IS NOT USED ***    | -                 |   |
| 54                        | 54   | BLANK        |             |         | *** THIS ITEM IS NOT USED ***    | -                 |   |

55 NOTE: SPARE LOCATIONS ARE D1-D8,R28,R30,R33,R35,R66,R75-R92

| D | I | G | I | T | A | L | TITLE                    | SECTION A | OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|--------------------------|-----------|------|------|------|-----------------|-----|
|   |   |   |   |   |   |   | INTERFACE LOW BITS (SBL) |           |      | K    | PL   | M7460-0-DBP     | A   |

| SIGNAL NAME               | PAGE NUMBER(S) | SIGNAL NAME            | PAGE NUMBER(S) | SIGNAL NAME             | PAGE NUMBER(S) |
|---------------------------|----------------|------------------------|----------------|-------------------------|----------------|
| SBLM IO RECIEVE 10 H      | SBLH           | SBLK SS EXPECT RD H    | SBLD,K         | SBLN CLEAR PAR REG L    | SBLN           |
| SBLM IO RECIEVE 11 H      | SBLH,S         | SBLK SS EXPECT RD L    | SBLE,K         | SBLN DISABLE SBI CYC H  | SBLT,N,H,O     |
| SBLM IO RECIEVE 12 H      | SBLH,S         | SBLK TIMEOUT CARRY H   | SBLK,M         | SBLN FORCE MISS GR1 H   | SBLH,H         |
| SBLM IO RECIEVE 13 H      | SBLH,S         | SBLK TIMEOUT CARRY L   | SBLK,O         | SBLN FORCE MISS GR1 L   | SBL,S,P,H,T    |
| SBLM IO RECIEVE 14 H      | SBLH,S         | SBLK TIMEOUT TRAP FF H | SBLK,O         | SBLN IB ERR H           | SBL,S,N        |
| SBLM IO RECIEVE 15 H      | SBLH,S         | SBLK ACK L             | SBLM,L         | SBLN IB PAR ERR H       | SBL,S,H        |
| SBLI ACK PULSE L          | SBLK,I         | SBLK ARB OK H          | SBL            | SBLN IB PAR ERR L       | SBLN,H         |
| SBLI ANY READ DATA L      | SBLK,I,E,M     | SBLK BSY LAST CYC H    | SBLE,L,I       | SBLH MAINT REG 00 H     | SBLK,N,H       |
| SBLI BSY LAST CYC H       | SBLM,I         | SBLK BSY OR NR H       | SBLK,M         | SBLH MAINT REG 09 H     | SBLN,H         |
| SBLI CS SET SBI CNF ERR H | SBLM,I         | SBLK ERR H             | SBLM,L         | SBLN MAINT REG 10 H     | SBLH,N         |
| SBLI ISR DATA L           | SBLR,I         | SBLP PULSE 3 OR 4 H    | SBLM,L         | SBLN PARITY REG 00 H    | SBLF,H         |
| SBLI READ DATA L          | SBLE,I         | SBLP RAISE HOLD H      | SBLL,U         | SBLN PARITY REG 01 H    | SBLF,H         |
| SBLI RESET BUSY H         | SBLI,D,E       | SBLP RAISE TR H        | SBLD,L,U       | SBLN PARITY REG 02 H    | SBLF,H         |
| SBLI RESET BUSY L         | SBLI,L,K       | SBLP SBI CNF1 R L      | SBLK,K         | SBLN PARITY REG 03 H    | SBLF,N         |
| SBLI SET TO OR CNF H      | SBLI,M,T       | SBLP TIMING PULSE 0 H  | SBL            | SBLN PARITY REG 04 H    | SBLF,H         |
| SBLI SET TO OR CNF L      | SBLI,K         | SBLP TIMING PULSE 1 H  | SBL            | SBLH PARITY REG 05 H    | SBLF,N         |
| SBLI TO OR CNF TRP H      | SBLM,B,I       | SBLP TIMING PULSE 2 H  | SBLK,M,R       | SBLH PARITY REG 06 H    | SBLF,N         |
| SBLJ ADDRESS REG 10 H     | SBLA,B,J       | SBLP TIMING PULSE 3 H  | SBLK,K         | SBLH PARITY REG 07 H    | SBLF,N         |
| SBLJ ADDRESS REG 11 H     | SBLA,B,J       | SBLP TIMING PULSE 4 H  | SBLK,K         | SBLH PARITY REG 08 H    | SBLN,H         |
| SBLJ ADDRESS REG 12 H     | SBLA,J         | SBLP TRANS ENABLE L    | SBLE,L         | SBLN PARITY REG 09 H    | SBLN,H         |
| SBLJ ADDRESS REG 13 H     | SBLA,J         | SBLP TRANSMIT CA H     | SBLE,L,K       | SBLH PARITY REG 10 H    | SBLH,H         |
| SBLJ ADDRESS REG 14 H     | SBLA,J         | SBLP XMIT MUX SEL 0 H  | SBLA,M,L,T     | SBLN PARITY REG 11 H    | SBLH,H         |
| SBLJ ADDRESS REG 15 H     | SBLA,J         | SBLP XMIT MUX SEL 0 L  | SBLA,L         | SBLN PARITY REG 12 H    | SBLN,H         |
| SBLJ ADDRESS REG 16 H     | SBLA,J         | SBLP XMIT MUX SEL 1 H  | SBLA,L         | SBLN PARITY REG 13 H    | SBLN,H         |
| SBLJ ADDRESS REG 17 H     | SBLA,J         | SBLP CLEAR IB L        | SBLM           | SBLN PARITY REG 15 H    | SBLN,H         |
| SBLJ MARK INVALID L       | SBLJ,R         | SBLM CP SBI ERR CNF H  | SBLM,H         | SBLH REPLACE GR0 H      | SBLH,H         |
| SBLJ PA 12 L              | SBLJ           | SBLM CP ST 0 H         | SBLM,H         | SBLN REPLACE GR1 H      | SBLN,H         |
| SBLJ PA 13 L              | SBLJ           | SBLM CP ST 1 H         | SBLM,H         | SBLN REVERSE P1 H       | SBLE,H,H       |
| SBLJ TIMEOUT ADRS 10 H    | SBLH,J         | SBLM CP TIMEOUT H      | SBLM,H         | SBLN SBI MISS DATA G0 H | SBLN           |
| SBLJ TIMEOUT ADRS 11 H    | SBLH,J         | SBLM CRD H             | SBLM,M         | SBLN SBI MISS DATA G1 H | SBLN           |
| SBLJ TIMEOUT ADRS 12 H    | SBLH,J         | SBLM CRD ROS INTR L    | SBLM           | SBLP ADRS LATCH 29 H    | SBLP,T         |
| SBLJ TIMEOUT ADRS 13 H    | SBLH,J         | SBLM IB ROS H          | SBLF,M         | SBLP ALLOW IB H         | SBLP,O         |
| SBLJ TIMEOUT ADRS 14 H    | SBLH,J         | SBLM IB ROS L          | SBLM,N         | SBLP ALLOW IB L         | SBLM,T,P       |
| SBLJ TIMEOUT ADRS 15 H    | SBLH,J         | SBLM IB SBI ERR CNF H  | SBLM,F         | SBLP ANY READ H         | SBLK,P,T       |
| SBLJ TIMEOUT ADRS 16 H    | SBLJ,H         | SBLM IB SBI ERR CNF L  | SBLM,N         | SBLP ANY READ L         | SBLP,L         |
| SBLJ TIMEOUT ADRS 17 N    | SBLJ,H         | SBLM IB ST 0 H         | SBLM,F         | SBLP ANY WRITE H        | SBLK,P,T       |
| SBLK ACK PULSE L          | SBLK,I         | SBLM IB ST 1 H         | SBLM,F         | SBLP EXTEND WRITE H     | SBLK,L,P       |
| SBLK BUFFER FULL A H      | SBLN,K         | SBLM IB TIMEOUT H      | SBLM,F         | SBLP FORCE HOLD L       | SBLD,K,P       |
| SBLK BUFFER FULL H        | SBLC,N,K,P,B   | SBLM IB TIMEOUT L      | SBLM,N         | SBLP FORCE INTLK H      | SBLP           |
| SBLK BUFFER FULL L        | SBLK,F,U,R     | SBLM MULT CP ERR H     | SBLM,F         | SBLP G0 PAR ERR H       | SBLP,R,S,T     |
| SBLK BUSH H               | SBLK,K         | SBLM RDS CRD INT EH H  | SBLH,M         | SBLP G1 PAR ERR H       | SBLP,R,S,T     |
| SBLK BUSH L               | SBLK,K         | SBLM RDS H             | SBLH,M         | SBLP ID BUFF 00 H       | SBLP,N         |
| SBLK CLEAR BUSY L         | SBLK           | SBLM SAVE ADRS H       | SBLM,O         | SBLP INTLK READ H       | SBLR,O,P       |
| SBLK EXPECT RD H          | SBLK,E         | SBLM SET ROS H         | SBLM,B         | SBLP INTLK READ L       | SBLP,K         |
| SBLK EXPECT RD L          | SBLK,R,B       | SBLM SET TO OR CNF H   | SBLI,M         | SBLP ISR H              | SBLK,R,L,P,T   |
| SBLK EXTEND READ H        | SBLK,R         | SBLM SET TO OR CNF L   | SBLK,M         | SBLP ISR OR WRITE H     | SBLP,O         |
| SBLK LATCH TMO REG L      | SBLK           | SBLM TIMEOUT TRAP L    | SBLM           | SBLP MO TO O L          | SBLP           |
| SBLK RESET BUSY H         | SBLI,D,K       | SBLM TMO CHF INT L     | SBLM           | SBLP PAR ERR TRAP L     | SBLP           |
| SBLK SET RETRY H          | SBLK,K         | SBLM BUFFER FULL FF H  | SBLN,T,R       | SBLP ROM ENABLE 0 H     | SBLP,T         |
| SBLK SET SBI CNF ERR H    | SBLK,I         | SBLM BUFFER FULL FF L  | SBLJ,H,T,O,P   | SBLP ROM EHALE 1 H      | SBLP,T         |

NOTES:  
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

(SBL1)

THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION.

| REVISIONS          |
|--------------------|
| CHK CHANGE NO. REV |

|                                    |                |                                    |                  |
|------------------------------------|----------------|------------------------------------|------------------|
| DRW. 11-2KA                        | DATE 10-AUG-83 | ENG. [Signature]                   | DATE [Signature] |
| CHK'D.                             | DATE 10-AUG-83 | BOARD LOCATION: REF                | SHEET 1 OF 1     |
| FIRST USED ON OPTION MODEL: 11/285 |                | NEXT HIGHER ASSEMBLY: B-DD-M7460-0 |                  |

|                               |             |    |                     |        |
|-------------------------------|-------------|----|---------------------|--------|
| TITLE: SBI INTERFACE LOW BITS | SIZE CODE K | CS | NUMBER M7460-0-SBL1 | REV. A |
|-------------------------------|-------------|----|---------------------|--------|



|                        |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|
| 8                      | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2785-0-09421           |   |   |   |   |   |   |   |
| CS K CS                |   |   |   |   |   |   |   |
| SIZE CODE              |   |   |   |   |   |   |   |
| NUMBER                 |   |   |   |   |   |   |   |
| REV. A                 |   |   |   |   |   |   |   |
| SBI INTERFACE LOW BITS |   |   |   |   |   |   |   |
| DATE 10-AUG-83         |   |   |   |   |   |   |   |
| ENG. B. J. L. 10/1/83  |   |   |   |   |   |   |   |
| DRN. 11/2785           |   |   |   |   |   |   |   |
| CHK'D 11/2785          |   |   |   |   |   |   |   |
| DATE 10-AUG-83         |   |   |   |   |   |   |   |
| BOARD LOCATION: AF2    |   |   |   |   |   |   |   |
| SHEET 1 OF 1           |   |   |   |   |   |   |   |
| SIZE CODE K CS         |   |   |   |   |   |   |   |
| NUMBER M7460-0-SBL2    |   |   |   |   |   |   |   |
| REV. A                 |   |   |   |   |   |   |   |
| T.1                    |   |   |   |   |   |   |   |

|                           |                |                        |                |                         |                |
|---------------------------|----------------|------------------------|----------------|-------------------------|----------------|
| SIGNAL NAME               | PAGE NUMBER(S) | SIGNAL NAME            | PAGE NUMBER(S) | SIGNAL NAME             | PAGE NUMBER(S) |
| SBLH ID RECIEVE 10 H      | SBLH           | SBLK SS EXPECT RD H    | SBLD,K         | SBLH CLEAR PAR REG L    | SBLN           |
| SBLH ID RECIEVE 11 H      | SBLH,S         | SBLK SS EXPECT RD L    | SBLK,K         | SBLH DISABLE SBI CYC H  | SBLT,N,H,D     |
| SBLH ID RECIEVE 12 H      | SBLH,S         | SBLK TIMEOUT CARRY H   | SBLK,M         | SBLH FORCE MISS GRI H   | SBLN,H         |
| SBLH ID RECIEVE 13 H      | SBLH,S         | SBLK TIMEOUT CARRY L   | SBLK,D         | SBLH FORCE MISS GRI L   | SBLN,P,H,T     |
| SBLH ID RECIEVE 14 H      | SBLH,S         | SBLK TIMEOUT TRAP FF H | SBLK,D         | SBLH IB ERR H           | SBLN           |
| SBLH ID RECIEVE 15 H      | SBLH,S         | SBLK ACK L             | SBLM,L         | SBLH IB PAR ERR H       | SBLN           |
| SBLI ACK PULSE L          | SBLK,I         | SBLK ARB OK H          | SBL            | SBLH IB PAR ERR L       | SBLN,H         |
| SBLI ANY READ DATA L      | SBLK,I,E,M     | SBLK BSY LAST CYC H    | SBLK,L,I       | SBLH MAINT REG 00 H     | SBLK,H,H       |
| SBLI BSY LAST CYC H       | SBLM,I         | SBLK BSY OR NR H       | SBLK,K,M       | SBLH MAINT REG 09 H     | SBLH,H         |
| SBLI CS SET SBI CNF ERR H | SBLM,I         | SBLK ERR H             | SBLM,L         | SBLH MAINT REG 10 H     | SBLH,H         |
| SBLI ISR DATA L           | SBLR,I         | SBLK PULSE 3 OR 4 H    | SBLM,L         | SBLH PARITY REG 00 H    | SBLF,H         |
| SBLI READ DATA L          | SBLK,I         | SBLK RAISE HOLD H      | SBLM,U         | SBLH PARITY REG 01 H    | SBLF,N         |
| SBLI RESET BUSY H         | SBLI,D,E       | SBLK RAISE TR H        | SBLD,L,U       | SBLH PARITY REG 02 H    | SBLF,H         |
| SBLI RESET BUSY L         | SBLI,L,K       | SBLK SBI CNF R L       | SBLK,K         | SBLH PARITY REG 03 H    | SBLF,H         |
| SBLI SET TO OR CNF H      | SBLI,M,T       | SBLK TIMING PULSE 0 H  | SBL            | SBLH PARITY REG 04 H    | SBLF,H         |
| SBLI SET TO OR CNF L      | SBLI,K         | SBLK TIMING PULSE 1 H  | SBL            | SBLH PARITY REG 05 H    | SBLF,H         |
| SBLI TO OR CNF TRP H      | SBLM,B,I       | SBLK TIMING PULSE 2 H  | SBLK,K,M,R     | SBLH PARITY REG 06 H    | SBLF,N         |
| SBLJ ADDRESS REG 10 H     | SBLA,B,J       | SBLK TIMING PULSE 3 H  | SBLK,K         | SBLH PARITY REG 07 H    | SBLF,N         |
| SBLJ ADDRESS REG 11 H     | SBLA,B,J       | SBLK TIMING PULSE 4 H  | SBLK,K         | SBLH PARITY REG 08 H    | SBLH,H         |
| SBLJ ADDRESS REG 12 H     | SBLA,J         | SBLK TRANS ENABLE L    | SBLK,L         | SBLH PARITY REG 09 H    | SBLH,H         |
| SBLJ ADDRESS REG 13 H     | SBLA,J         | SBLK TRANSMIT CA H     | SBLK,L,K       | SBLH PARITY REG 10 H    | SBLH,H         |
| SBLJ ADDRESS REG 14 H     | SBLA,J         | SBLK XMIT MUX SEL 0 H  | SBLA,M,L,T     | SBLH PARITY REG 11 H    | SBLH,H         |
| SBLJ ADDRESS REG 15 H     | SBLA,J         | SBLK XMIT MUX SEL 0 L  | SBLA,L         | SBLH PARITY REG 12 H    | SBLH,H         |
| SBLJ ADDRESS REG 16 H     | SBLA,J         | SBLK XMIT MUX SEL 1 H  | SBLA,L         | SBLH PARITY REG 13 H    | SBLH,H         |
| SBLJ ADDRESS REG 17 H     | SBLA,J         | SBLM CLEAR IB L        | SBLM           | SBLH PARITY REG 14 H    | SBLH,H         |
| SBLJ MARK INVALID L       | SBLJ,R         | SBLM CP SBI ERR CNF H  | SBLM,H         | SBLH REPLACE GR0 H      | SBLH,H         |
| SBLJ PA 12 L              | SBLJ           | SBLM CP ST 0 H         | SBLM,H         | SBLH REPLACE GR1 H      | SBLH,H         |
| SBLJ PA 13 L              | SBLJ           | SBLM CP ST 1 H         | SBLM,H         | SBLH REVERSE P1 H       | SBLK,H,H       |
| SBLJ TIMEOUT ADRS 10 H    | SBLM,J         | SBLM CP TIMEOUT H      | SBLM,H         | SBLH SBI MISS DATA 00 H | SBLN           |
| SBLJ TIMEOUT ADRS 11 H    | SBLM,J         | SBLM CRD H             | SBLH,H         | SBLH SBI MISS DATA 01 H | SBLN           |
| SBLJ TIMEOUT ADRS 12 H    | SBLN,J         | SBLM CRD RDS INTR L    | SBLM           | SBLP ADRS LATN 29 H     | SBLP,T         |
| SBLJ TIMEOUT ADRS 13 H    | SBLH,J         | SBLM IB RDS H          | SBLF,M         | SBLP ALLOW IB H         | SBLP,D         |
| SBLJ TIMEOUT ADRS 14 H    | SBLH,J         | SBLM IB RDS L          | SBLM,H         | SBLP ALLOW IB L         | SBLM,T,P       |
| SBLJ TIMEOUT ADRS 15 H    | SBLH,J         | SBLM IB SBI ERR CNF H  | SBLM,F         | SBLP ANY READ H         | SBLK,P,T       |
| SBLJ TIMEOUT ADRS 16 H    | SBLJ,H         | SBLM IB SBI ERR CNF L  | SBLM,H         | SBLP ANY READ L         | SBLP,L         |
| SBLJ TIMEOUT ADRS 17 H    | SBLJ,H         | SBLM IB ST 0 H         | SBLM,F         | SBLP ANY WRITE H        | SBLK,P,T       |
| SBLK ACK PULSE L          | SBLK,I         | SBLM IB ST 1 H         | SBLM,F         | SBLP EXTEND WRITE H     | SBLK,L,P       |
| SBLK BUFFER FULL A H      | SBLN,K         | SBLM IB TIMEOUT H      | SBLM,F         | SBLP FORCE HOLD L       | SBLD,K,P       |
| SBLK BUFFER FULL H        | SBLK,H,K,P,B   | SBLM IB TIMEOUT L      | SBLM,H         | SBLP FORCE INTLK H      | SBLP           |
| SBLK BUFFER FULL L        | SBLK,F,U,R     | SBLM MULT CP ERR H     | SBLM,F         | SBLP 00 PAR ERR H       | SBLP,R,S,T     |
| SBLK BUSY H               | SBLK,K         | SBLM RDS CRD INT EN H  | SBLH,M         | SBLP 01 PAR ERR H       | SBLP,R,S,T     |
| SBLK BUSY L               | SBLK,K         | SBLM RDS H             | SBLH,M         | SBLP ID BUFF 00 H       | SBLP,H         |
| SBLK CLEAR BUSY L         | SBLK           | SBLM SAVE ADRS H       | SBLM,D         | SBLP INTLK READ H       | SBLR,D,P       |
| SBLK EXPECT RD H          | SBLK,E         | SBLM SET RDS H         | SBLM,B         | SBLP INTLK READ L       | SBLP,K         |
| SBLK EXPECT RD L          | SBLK,R,B       | SBLM SET TO OR CNF H   | SBLI,M         | SBLP ISR H              | SBLK,R,L,P,T   |
| SBLK EXTEND READ H        | SBLK,R         | SBLM SET TO OR CNF L   | SBLK,M         | SBLP ISR DR WRITE H     | SBLP,D         |
| SBLK LATCH TIMO REG L     | SBLK           | SBLM TIMEOUT TRAP L    | SBLM           | SBLP MD TO D L          | SBLP           |
| SBLK RESET BUSY H         | SBLI,D,K       | SBLM TIMO CNF INT L    | SBLM           | SBLP PAR ERR TRAP L     | SBLP           |
| SBLK SET RETRY H          | SBLK,K         | SBLH BUFFER FULL FF H  | SBLH,T,R       | SBLP ROM ENABLE 0 H     | SBLP,T         |
| SBLK SET SBI CNF ERR H    | SBLK,I         | SBLH BUFFER FULL FF L  | SBLJ,N,T,D,P   | SBLP ROM ENABLE 1 H     | SBLP,T         |

NOTES:  
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

(SBL2)

THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION.

|           |     |            |     |
|-----------|-----|------------|-----|
| REVISIONS | CHK | CHANGE NO. | REV |
|           |     |            |     |

digital

DRN. 11/2785

DATE 10-AUG-83

ENG. B. J. L. 10/1/83

CHK'D 11/2785

DATE 10-AUG-83

BOARD LOCATION: AF2

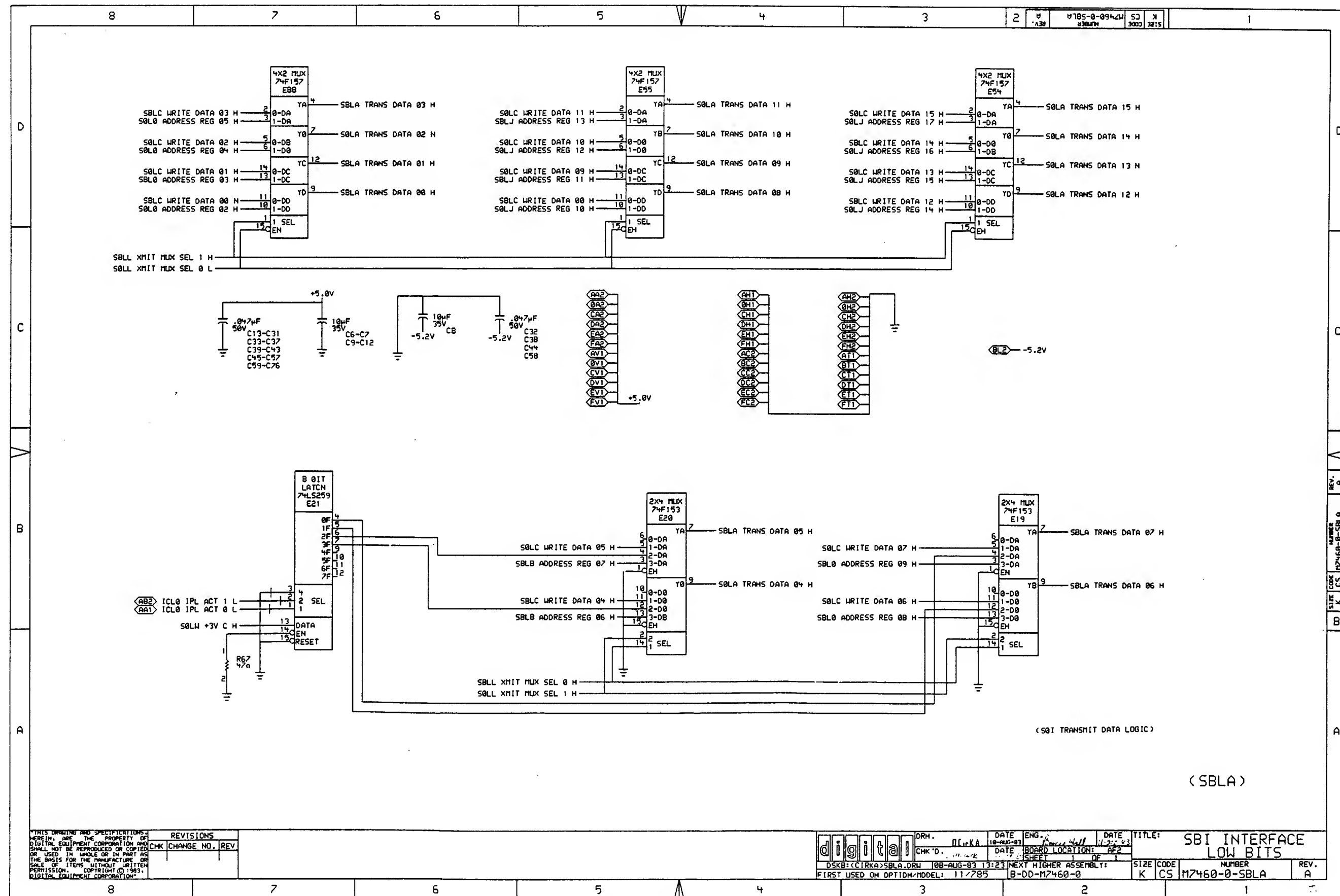
SHEET 1 OF 1

SIZE CODE K CS

NUMBER M7460-0-SBL2

REV. A

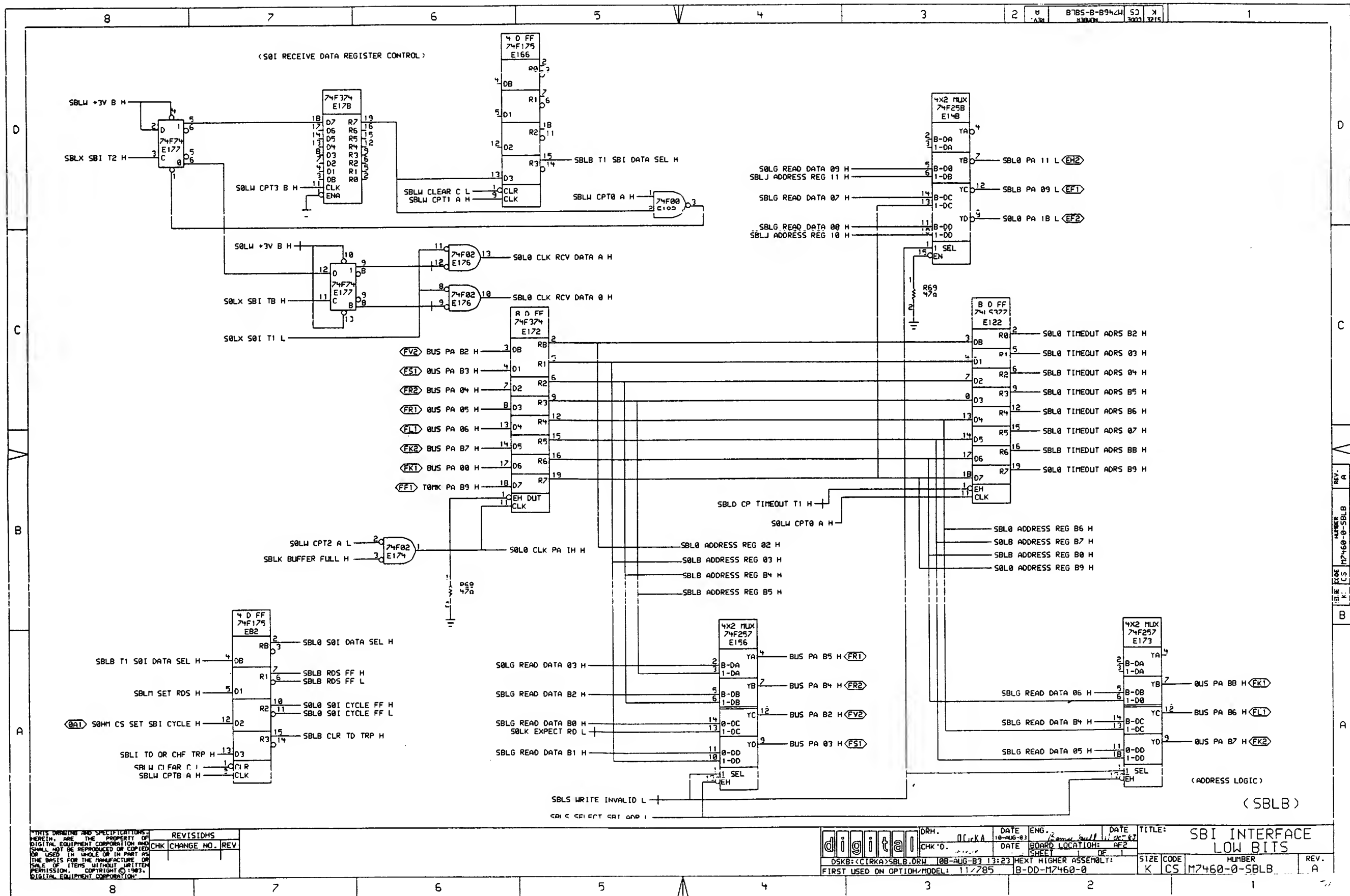
T.1

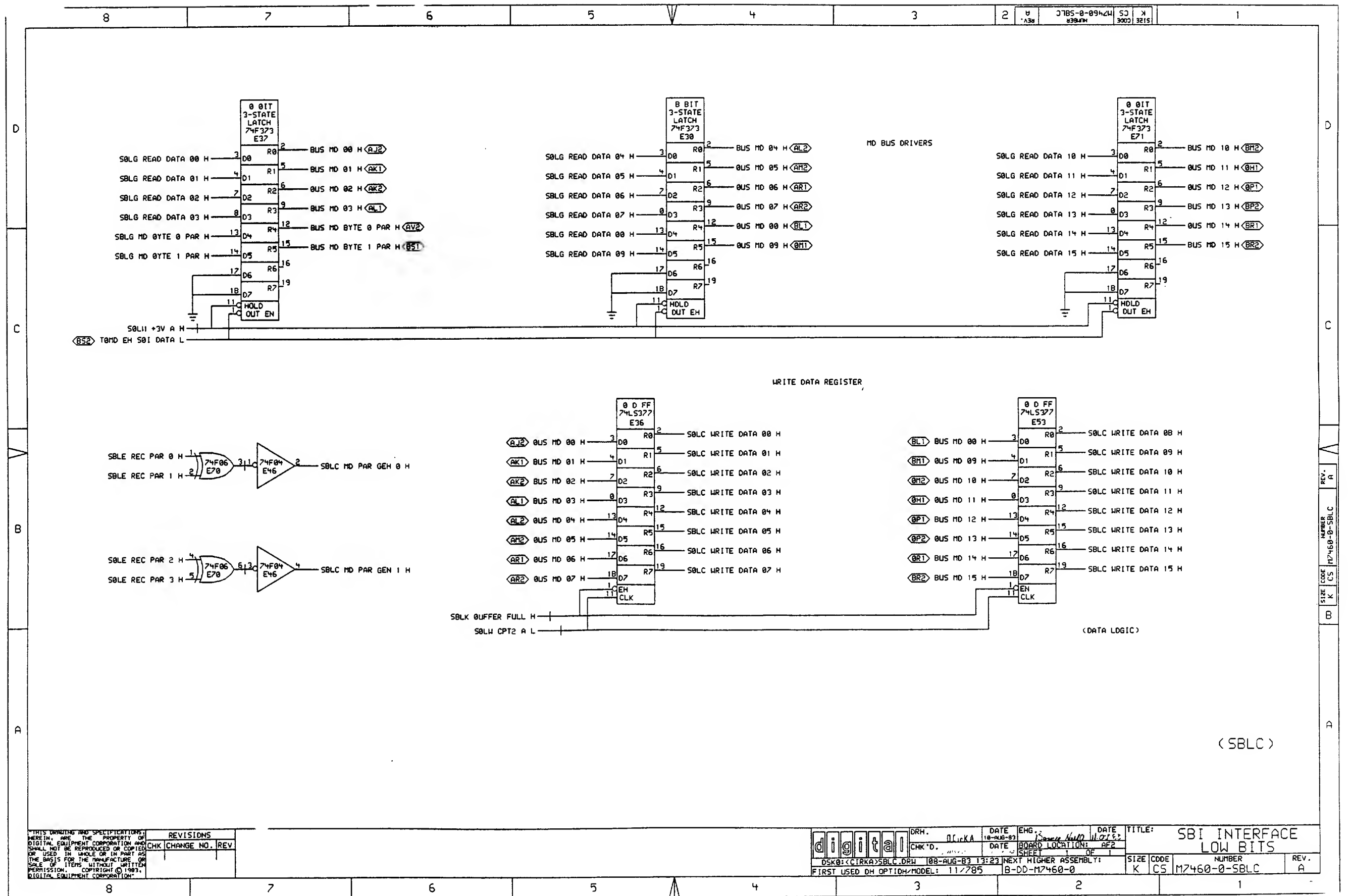


THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION.

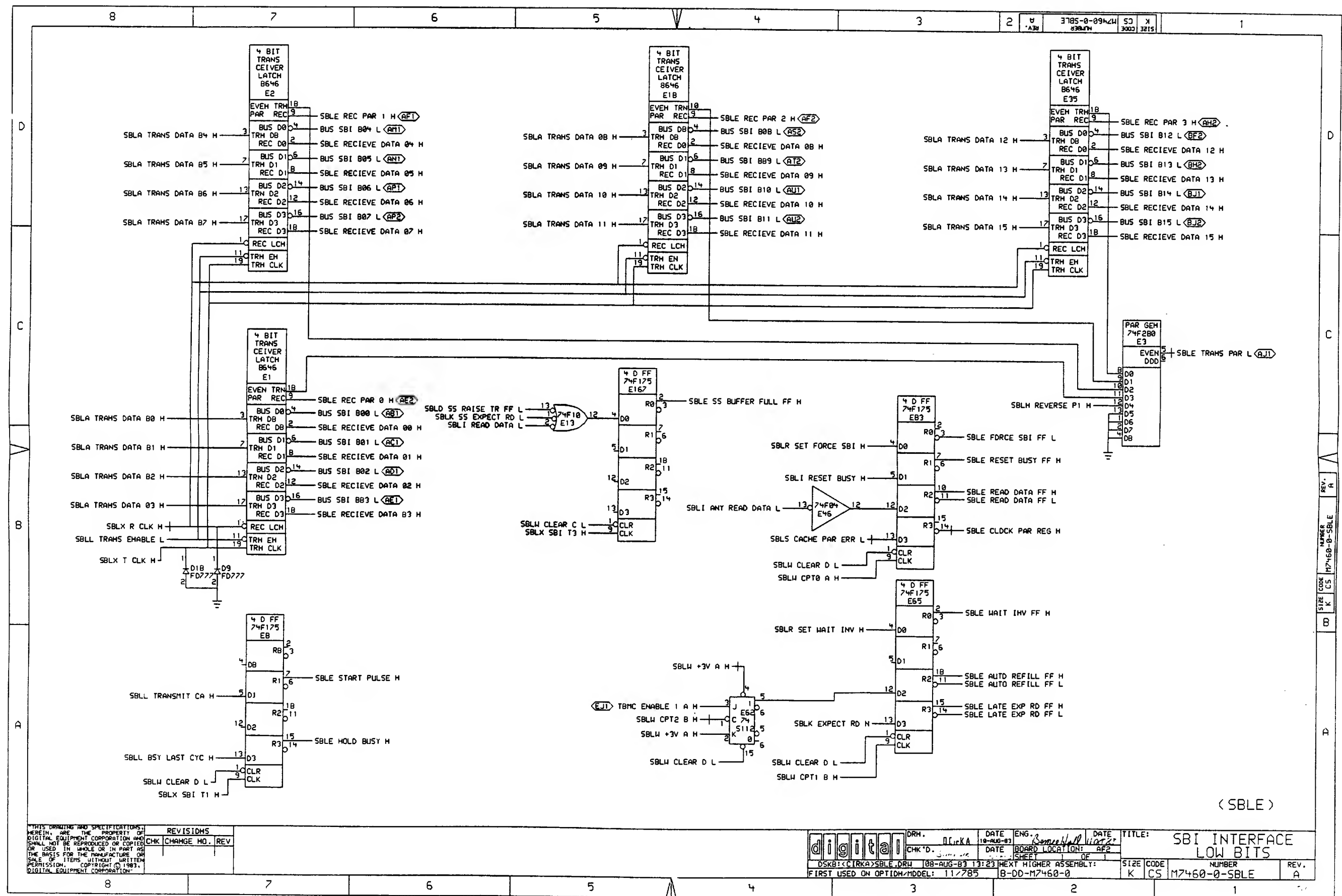
| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|  |  |                            |                     |                                      |
|--|--|----------------------------|---------------------|--------------------------------------|
| DRH. <b>digital</b>  | DATE <b>10-AUG-83</b>                            | ENG. <b>ALL</b>            | DATE <b>11-2-83</b> | TITLE: <b>SBI INTERFACE LOW BITS</b> |
| CHK'D. <b>11-2-83</b>  | DATE <b>11-2-83</b>                              | BOARD LOCATION: <b>AF2</b> | SHEET <b>1</b>      | OF <b>1</b>                          |
| DSKB: (CIRKA) SBLA.DRW 108-AUG-83 13:23 NEXT HIGHER ASSEMBLY: B-DD-M7460-0 |  |                            |                     |                                      |
| FIRST USED ON OPTION/MODEL: <b>11/785</b>                                  | SIZE CODE NUMBER REV. <b>K CS M7460-0-SBLA A</b> |                            |                     |                                      |

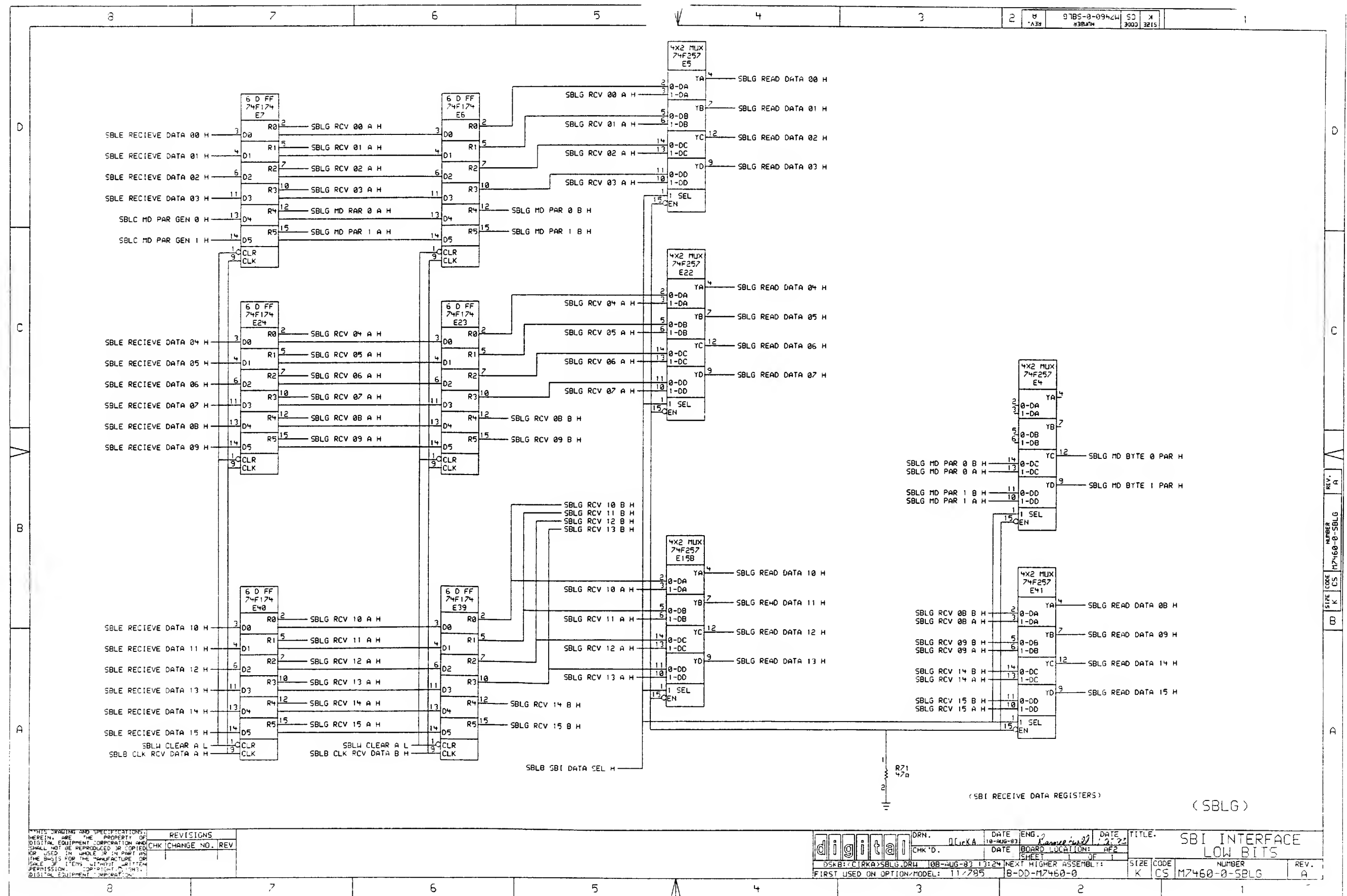




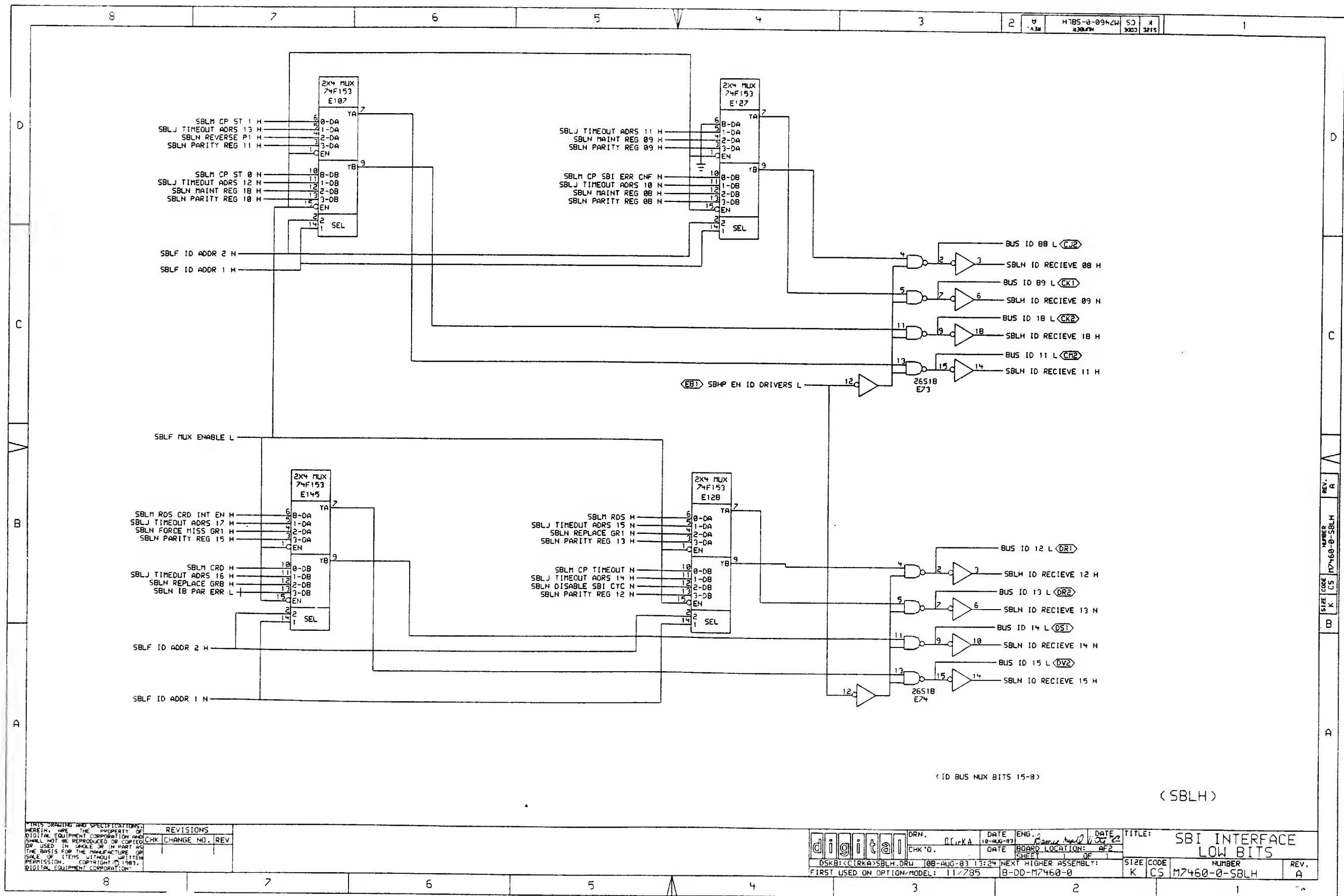






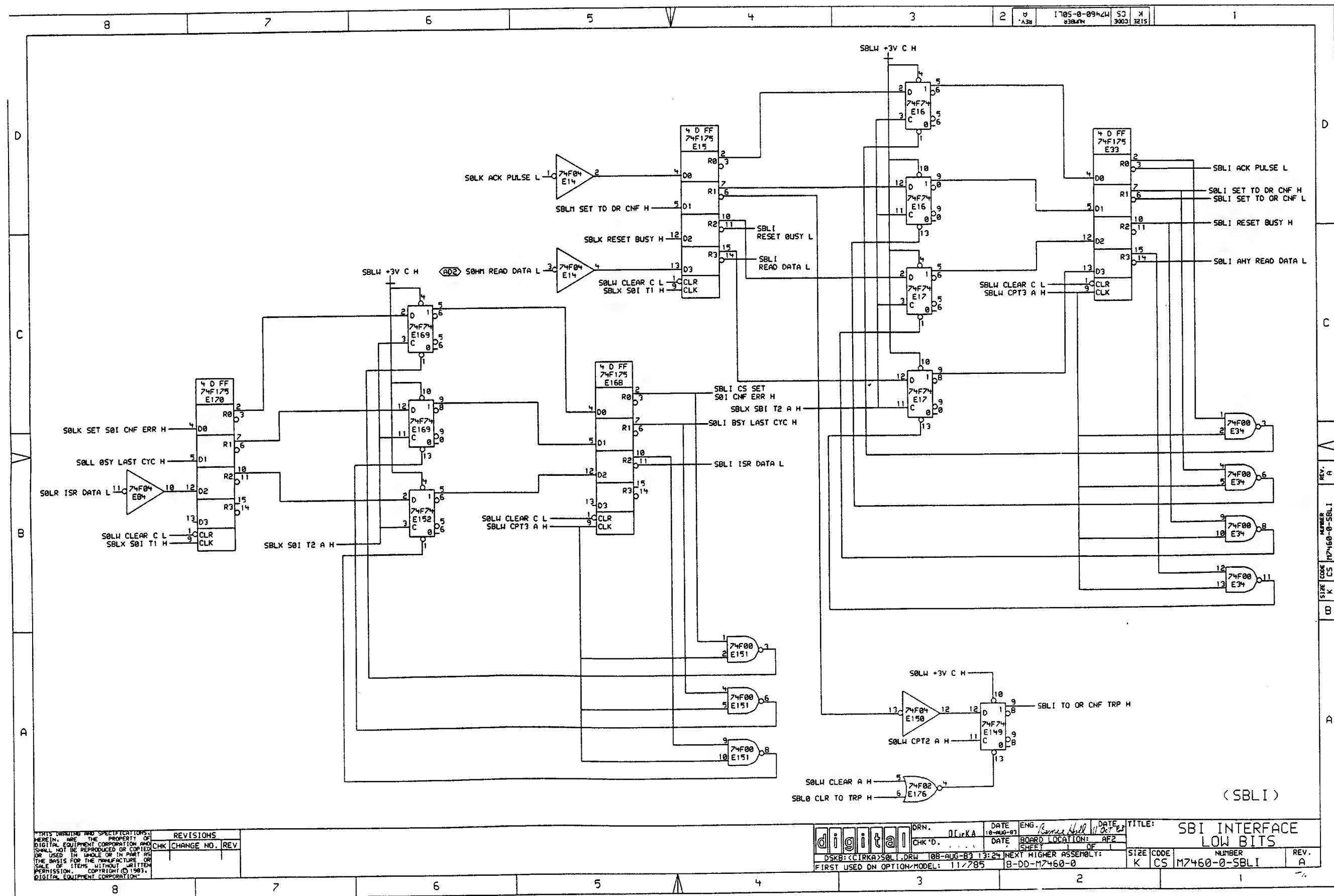


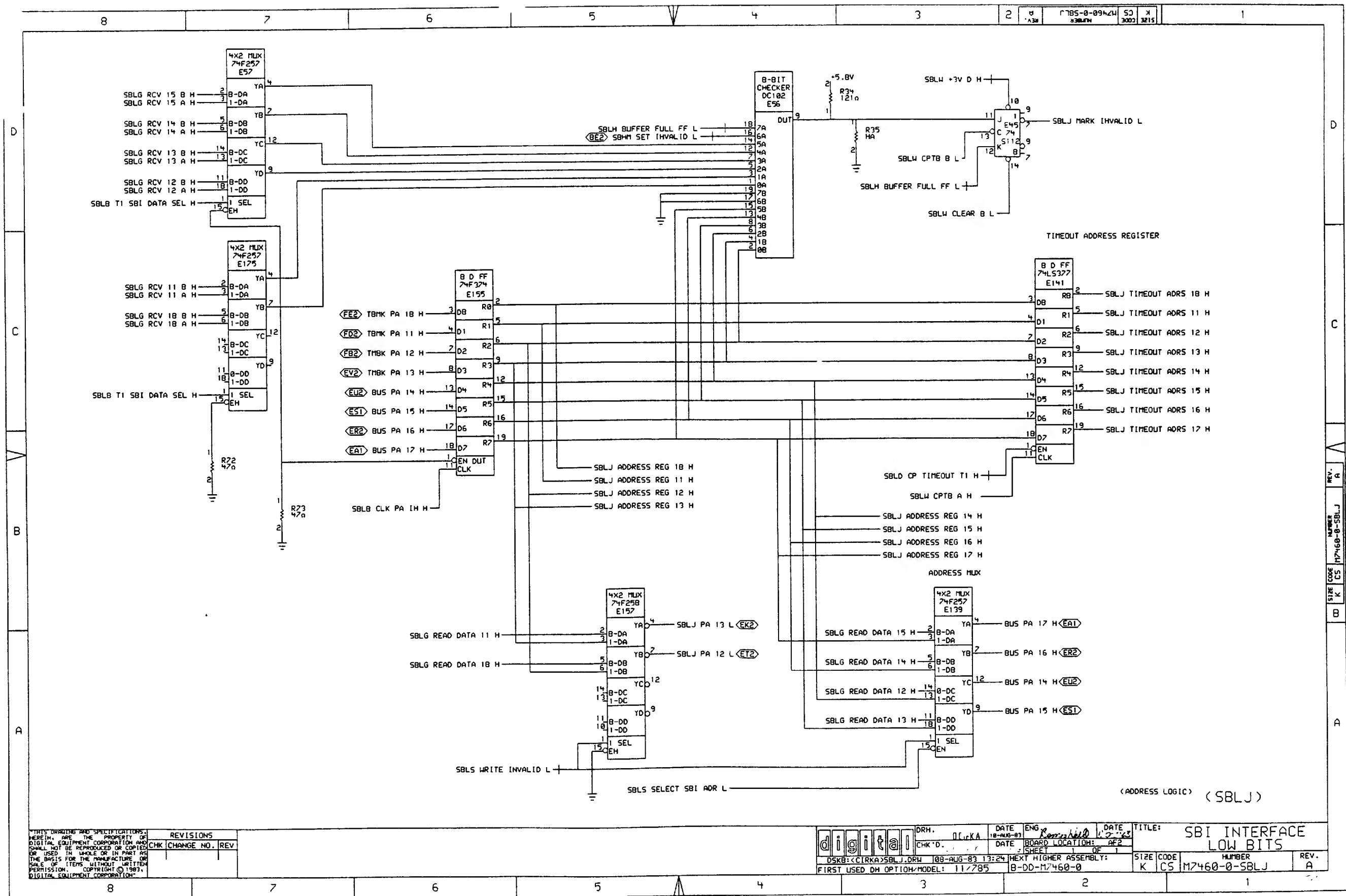


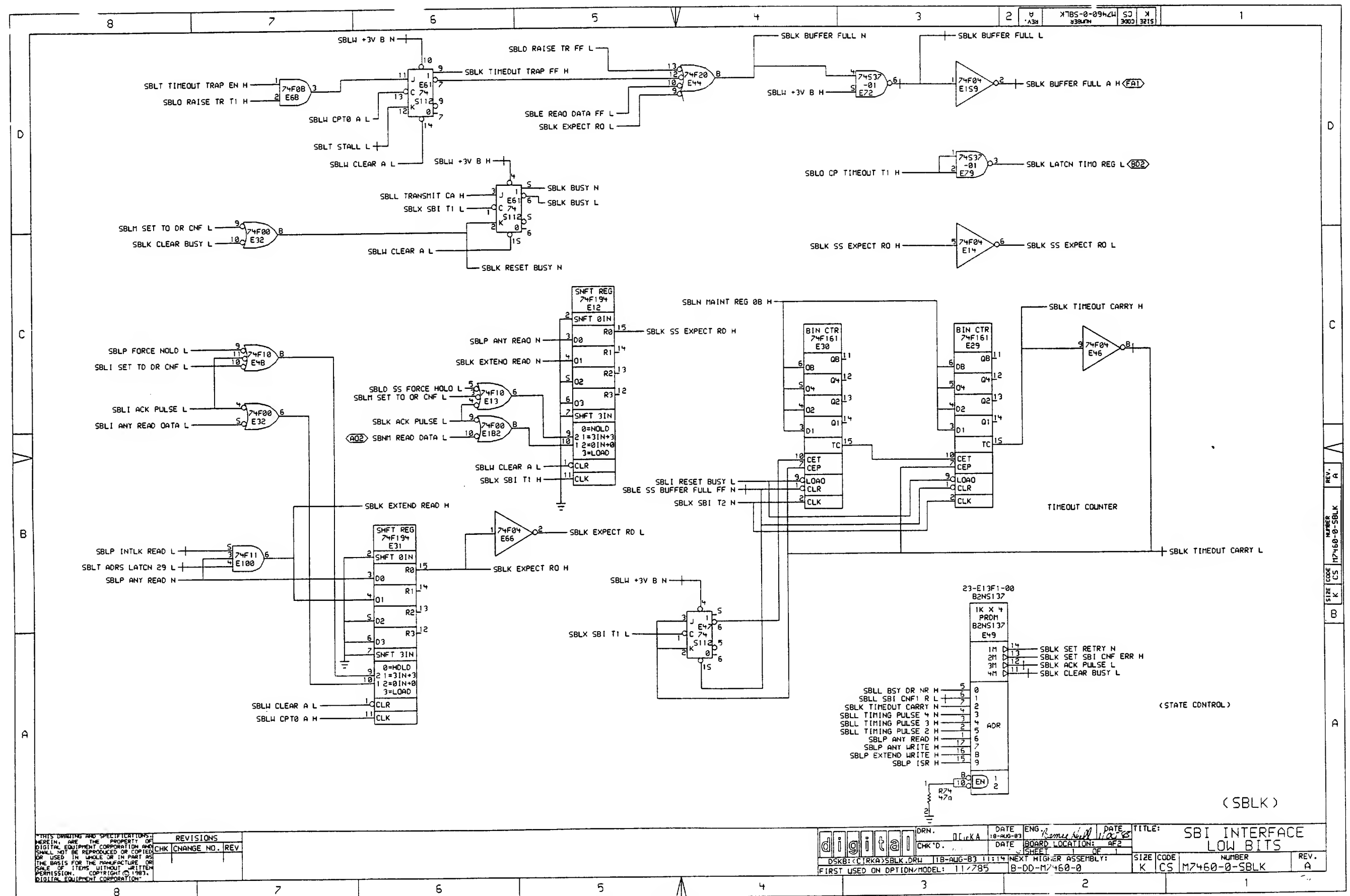


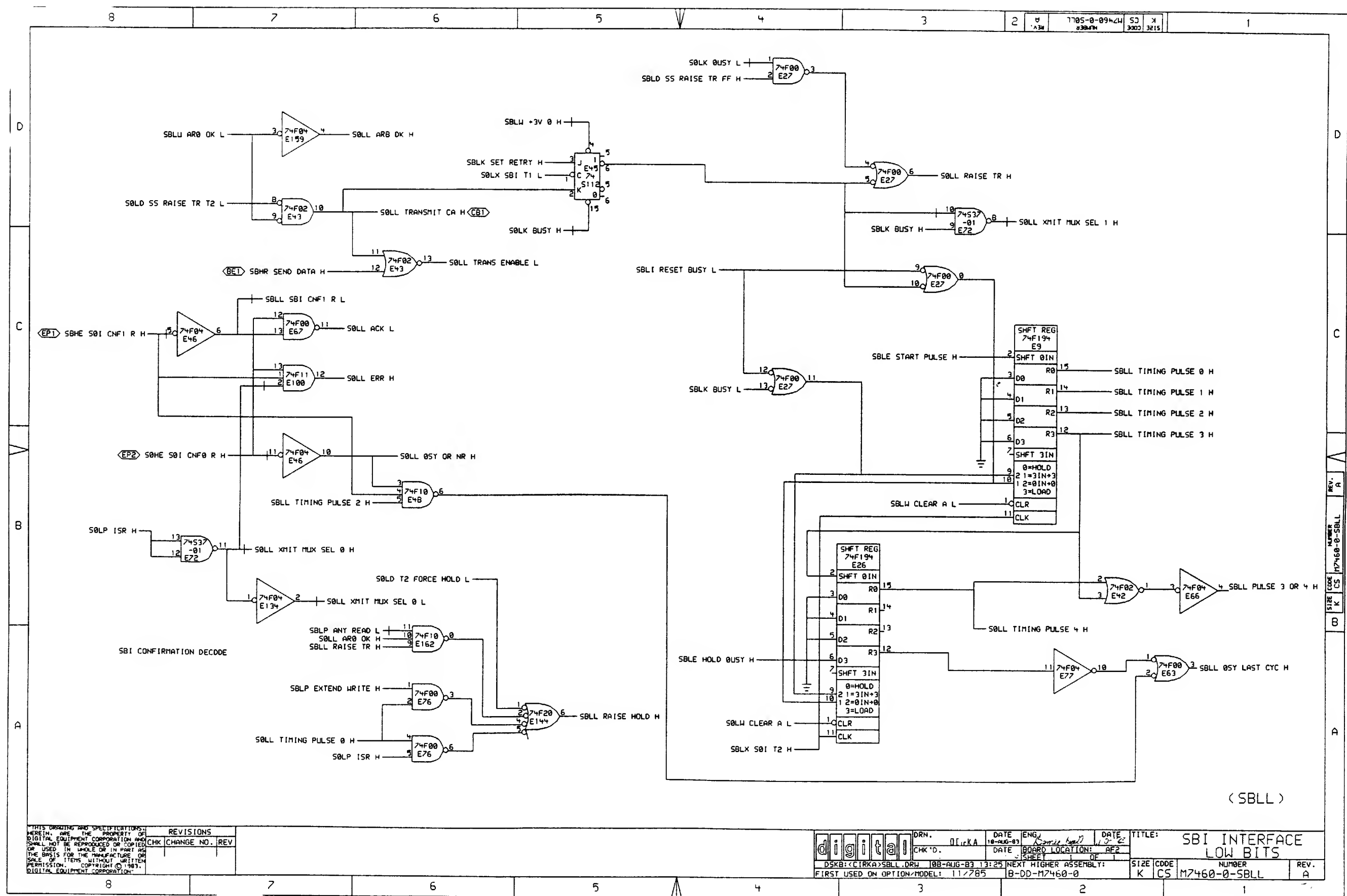
| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |
|           |            |     |

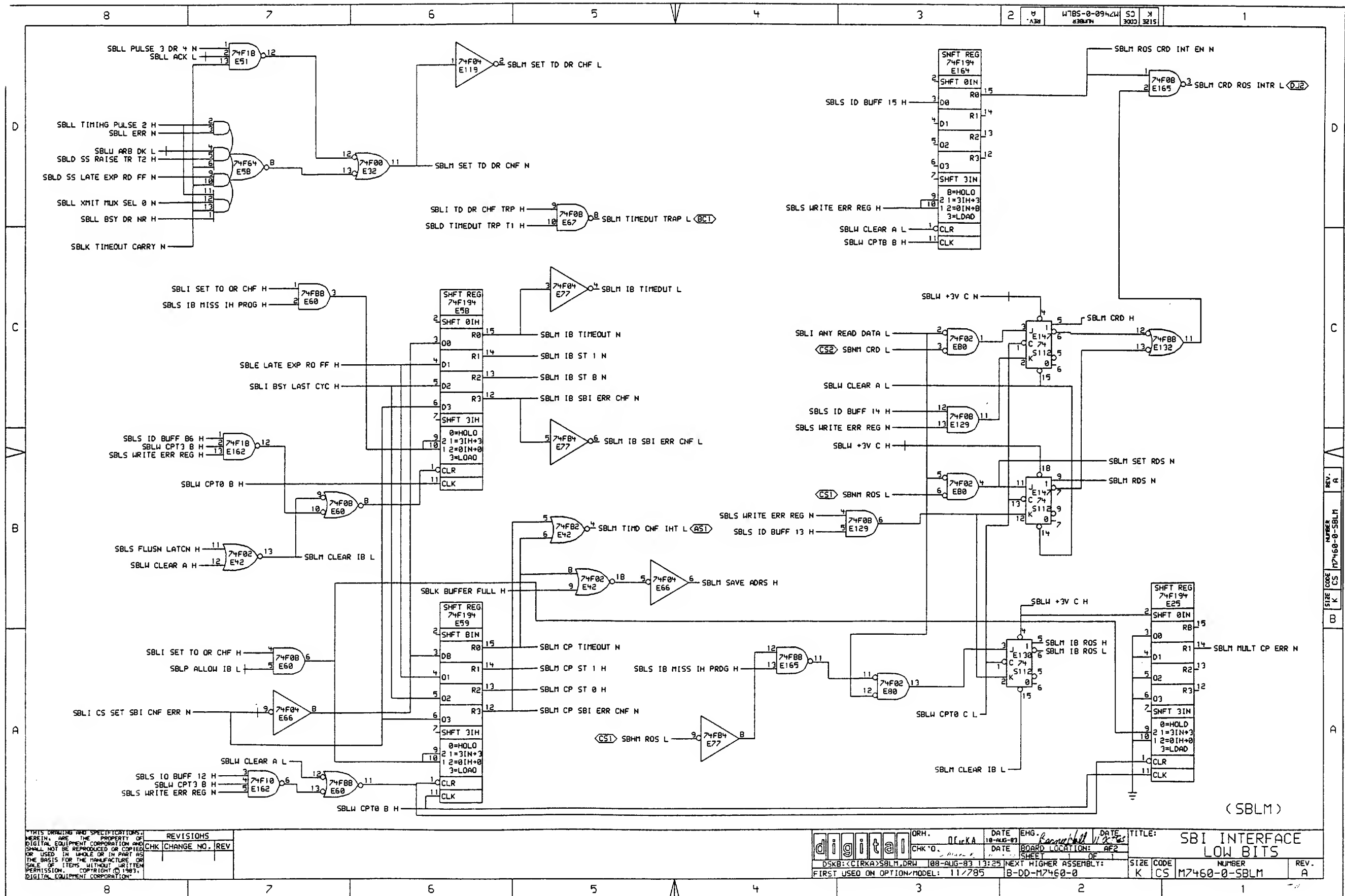
|  |        |      |                 |      |                        |
|--|--------|------|-----------------|------|------------------------|
| digital  | DRN.   | DATE | ENG.            | DATE | TITLE:                 |
|  | CHK'D. | DATE | BOARD LOCATION: | AF2  | SBI INTERFACE LOW BITS |
| DSKB: C:\RKA\SBLH.DRW 108-AUG-83 13:24 NEXT HIGHER ASSEMBLY: |        |      |                 |      | SIZE CODE              |
| FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7460-0              |        |      |                 |      | NUMBER                 |
|  |        |      |                 |      | REV.                   |
|  |        |      |                 |      | A                      |











THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION.

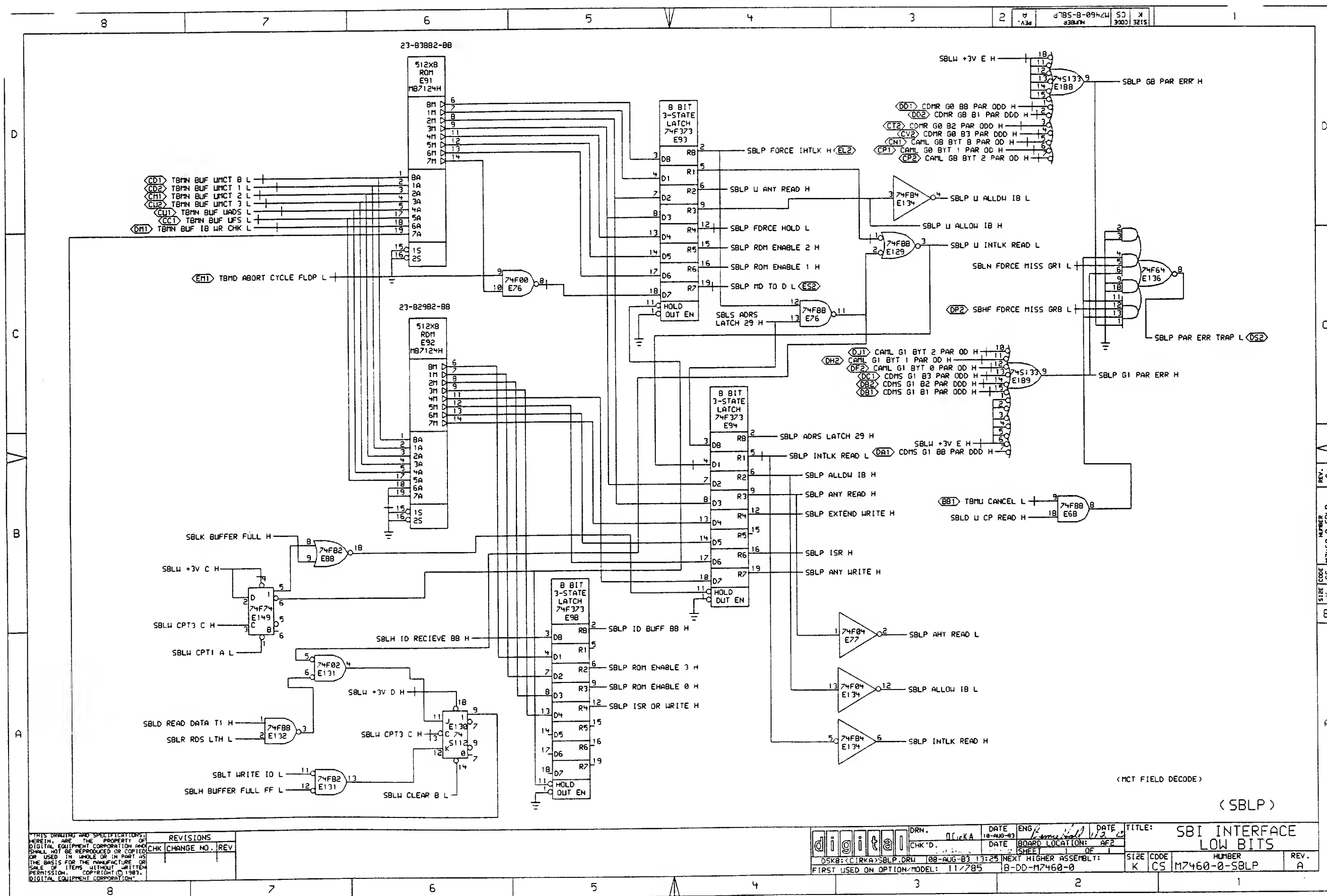
| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

**digital** ORH.  
CHK'D. DATE 11-785  
DATE 11-785  
SHEET 1 OF 1

DATE 11-785  
BOARD LOCATION: AF2  
NEXT HIGHER ASSEMBLY:  
B-DD-M7460-0

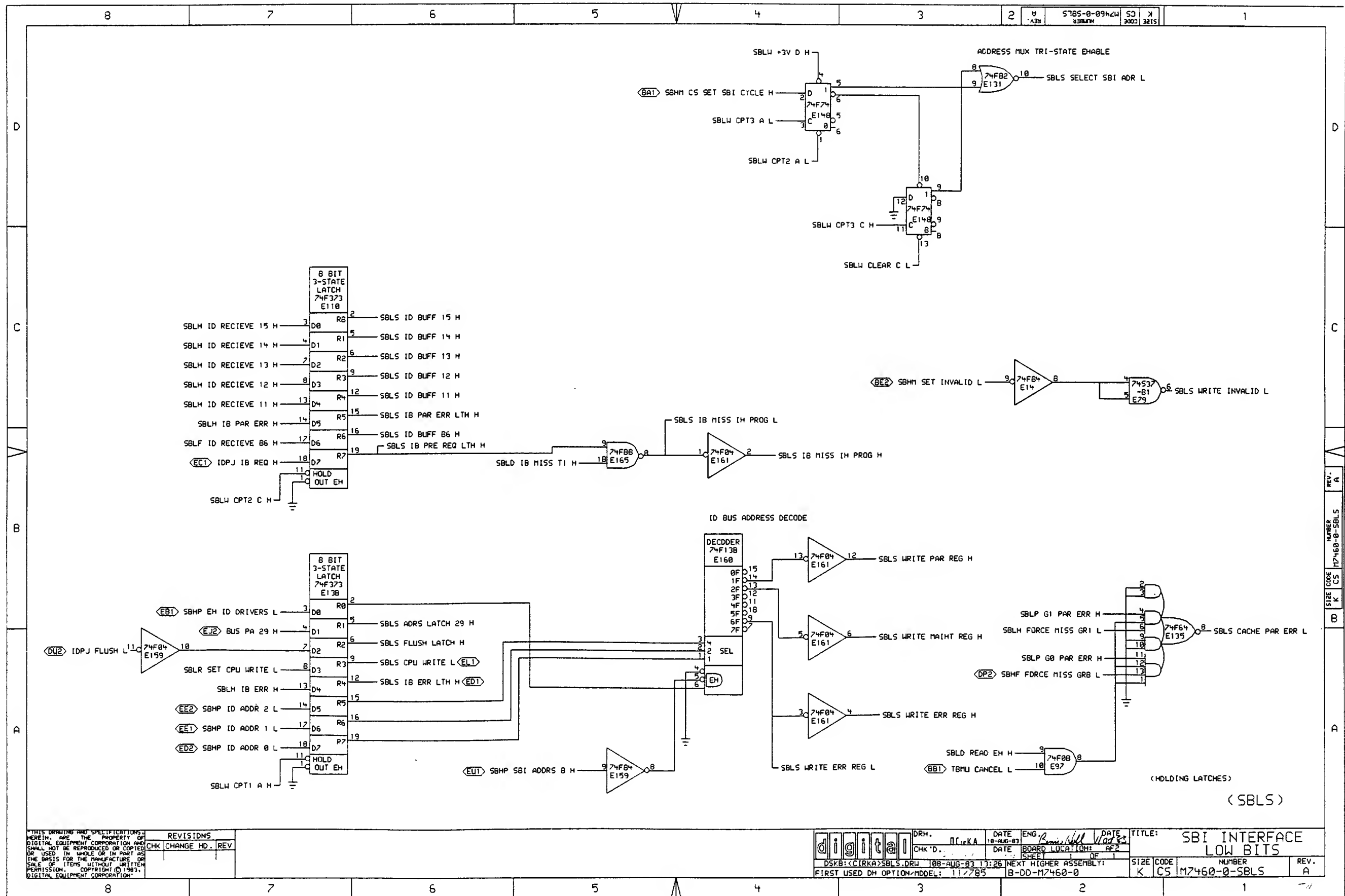
TITLE: SBI INTERFACE  
LOW BITS  
SIZE CODE K CS  
NUMBER M7460-0-SBLM  
REV. A





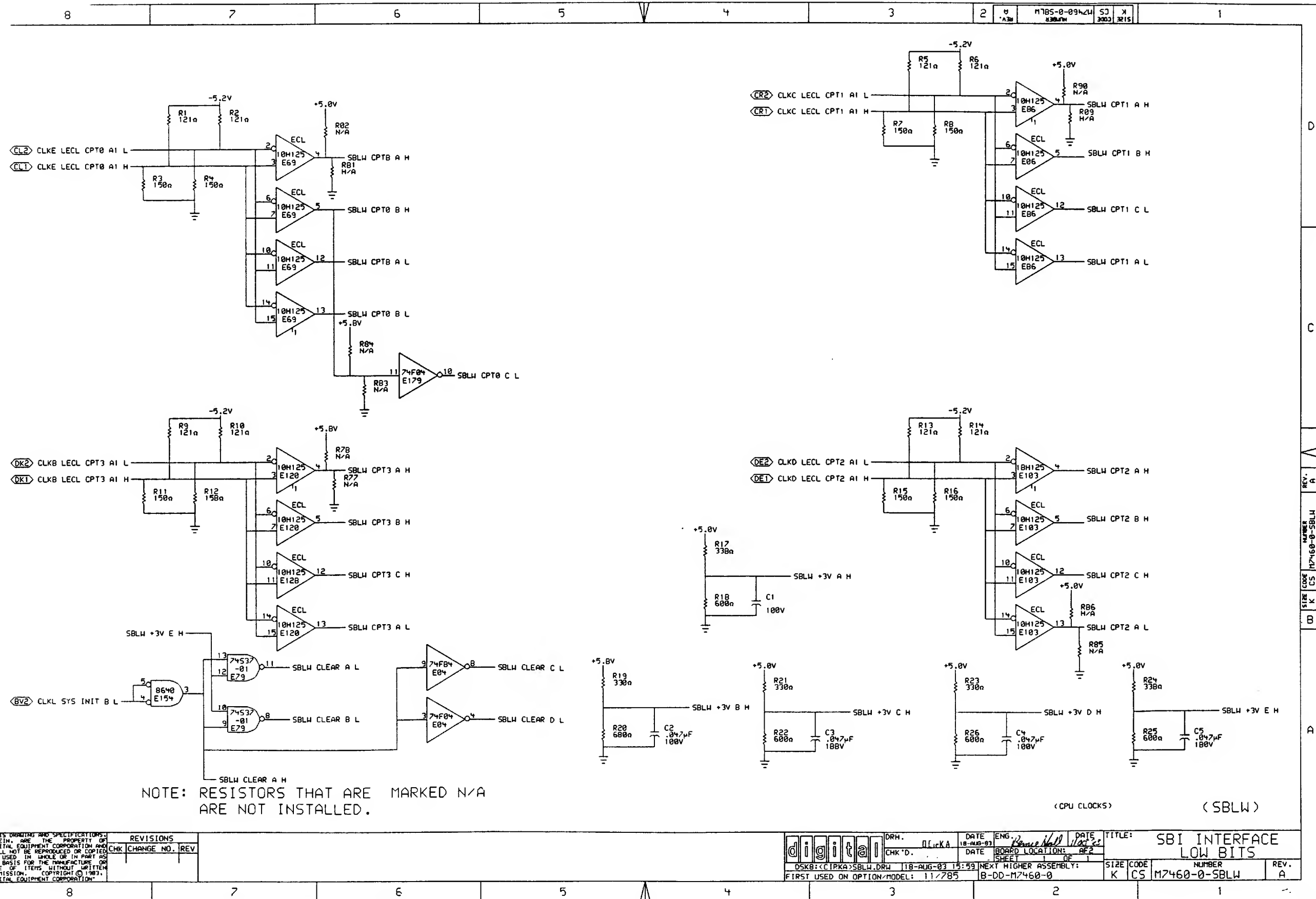








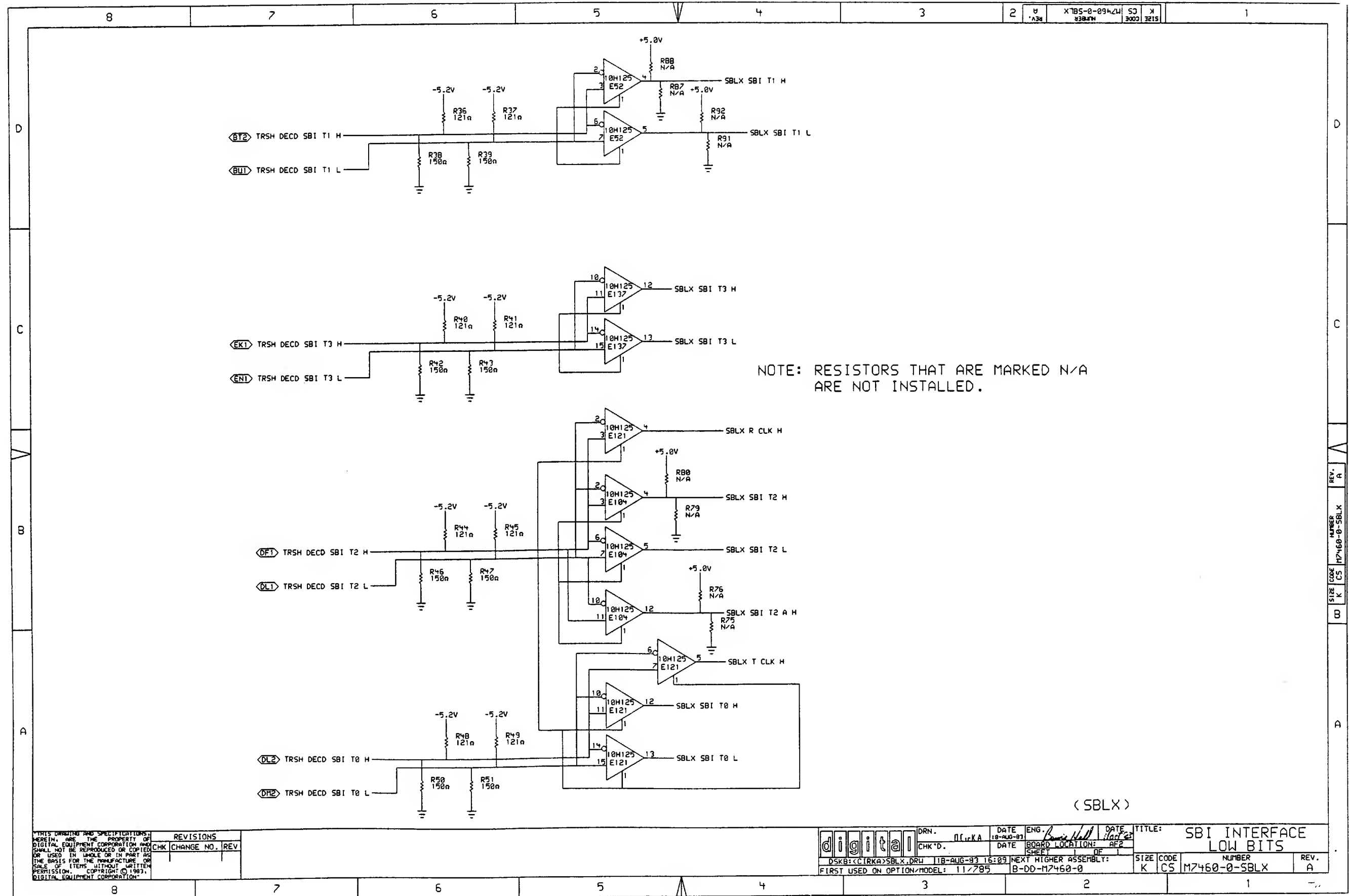




THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1981,  
DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |                |
|-----------|----------------|
| CHK       | CHANGE NO. REV |
|           |                |

|   |        |         |      |           |                |         |       |           |       |                        |      |              |
|---|--------|---------|------|-----------|----------------|---------|-------|-----------|-------|------------------------|------|--------------|
| digital   | DRH.   | 11/1/81 | DATE | 18-AUG-83 | ENG.           | 11/1/81 | DATE  | 18-AUG-83 | TITLE | SBI INTERFACE LOW BITS |      |              |
|   | CHK'D. |         | DATE |           | BOARD LOCATION | AF2     | SHEET | OF        |       | SIZE                   | CODE | NUMBER       |
| DSK8:CCIPKA>SBLW.DRW 18-AUG-83 15:59 NEXT HIGHER ASSEMBLY: B-DD-M7460-0 |        |         |      |           |                |         |       |           |       | K                      | CS   | M7460-0-SBLW |
| FIRST USED ON OPTION/MODEL: 11/785                                      |        |         |      |           |                |         |       |           |       |                        |      | REV. A       |



|                            |      |                            |          |                            |      |                            |          |
|----------------------------|------|----------------------------|----------|----------------------------|------|----------------------------|----------|
| 8                          | 7    | 6                          | 5        | 4                          | 3    | 2                          | 1        |
| SIGNAL NAME PAGE NUMBER(S) |      | SIGNAL NAME PAGE NUMBER(S) |          | SIGNAL NAME PAGE NUMBER(S) |      | SIGNAL NAME PAGE NUMBER(S) |          |
| BUS ID 00 L                | SBLF | BUS SBI 804 L              | SBLE     | CLKE LECL CPTB A1 H        | SBLW | CLKE LECL CPTB A1 L        | SBLW     |
| BUS ID 01 L                | SBLF | BUS SBI 805 L              | SBLE     | CLKL SYS INIT B L          | SBLW | ICLB IPL ACT B L           | SBLA     |
| BUS ID 02 L                | SBLF | BUS SBI 806 L              | SBLE     | ICLB IPL ACT I L           | SBLA | IDPJ FLUSH L               | SBL5     |
| BUS ID 03 L                | SBLF | BUS SBI 807 L              | SBLE     | IDPJ IB REQ H              | SBL5 | SBHE SBI CNFB R H          | SBL5,P,T |
| BUS ID 04 L                | SBLF | BUS SBI 808 L              | SBLE     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 05 L                | SBLF | BUS SBI 809 L              | SBLE     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 06 L                | SBLF | BUS SBI 810 L              | SBLE     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 07 L                | SBLF | BUS SBI 811 L              | SBLE     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 08 L                | SBLF | BUS SBI 812 L              | SBLE     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 09 L                | SBLF | BUS SBI 813 L              | SBLE     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 10 L                | SBLF | BUS SBI 814 L              | SBLE     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 11 L                | SBLF | BUS SBI 815 L              | SBLE     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 12 L                | SBLF | BUS SBI TR 00 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 13 L                | SBLF | BUS SBI TR 01 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 14 L                | SBLF | BUS SBI TR 02 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS ID 15 L                | SBLF | BUS SBI TR 03 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 00 H                | SBLC | BUS SBI TR 04 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 01 H                | SBLC | BUS SBI TR 05 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 02 H                | SBLC | BUS SBI TR 06 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 03 H                | SBLC | BUS SBI TR 07 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 04 H                | SBLC | BUS SBI TR 08 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 05 H                | SBLC | BUS SBI TR 09 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 06 H                | SBLC | BUS SBI TR 10 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 07 H                | SBLC | BUS SBI TR 11 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 08 H                | SBLC | BUS SBI TR 12 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 09 H                | SBLC | BUS SBI TR 13 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 10 H                | SBLC | BUS SBI TR 14 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 11 H                | SBLC | BUS SBI TR 15 L            | SBLU     | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 12 H                | SBLC | CAMK GB MATCH H            | SBLR,T,H | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 13 H                | SBLC | CAMK G1 MATCH H            | SBLR,T,H | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 14 H                | SBLC | CAML GB BYT 8 PAR 00 H     | SBLP,H   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD 15 H                | SBLC | CAML GB BYT 1 PAR 00 H     | SBLP,H   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD BYTE 8 PAR H        | SBLC | CAML GB BYT 2 PAR 00 H     | SBLP,N   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS MD BYTE 1 PAR H        | SBLC | CAML G1 BYT 8 PAR 00 H     | SBLP,N   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 02 H                | SBLB | CAML G1 BYT 1 PAR 00 H     | SBLP,N   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 03 H                | SBLB | CAML G1 BYT 2 PAR 00 H     | SBLP,H   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 04 H                | SBLB | CDMR G0 88 PAR 000 H       | SBLP,H   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 05 H                | SBLB | CDMR G0 81 PAR 000 H       | SBLP,N   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 06 H                | SBLB | CDMR G0 82 PAR 000 H       | SBLP,N   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 07 H                | SBLB | CDMR G0 83 PAR 000 H       | SBLP,H   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 08 H                | SBLB | CDMS G1 88 PAR 000 H       | SBLP,H   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 14 H                | SBLJ | CDMS G1 81 PAR 000 H       | SBLP,H   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 15 H                | SBLJ | CDMS G1 82 PAR 000 H       | SBLP,H   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 16 H                | SBLJ | CDMS G1 83 PAR 000 H       | SBLP,H   | SBHE SBI CNF1 R H          | SBL5 | SBHE SBI CNF1 R H          | SBL5     |
| BUS PA 17 H                | SBLJ | CLKB LECL CPT3 A1 H        | SBLW     | SBHE SBI CNF1 R H          | SBL  |                            |          |

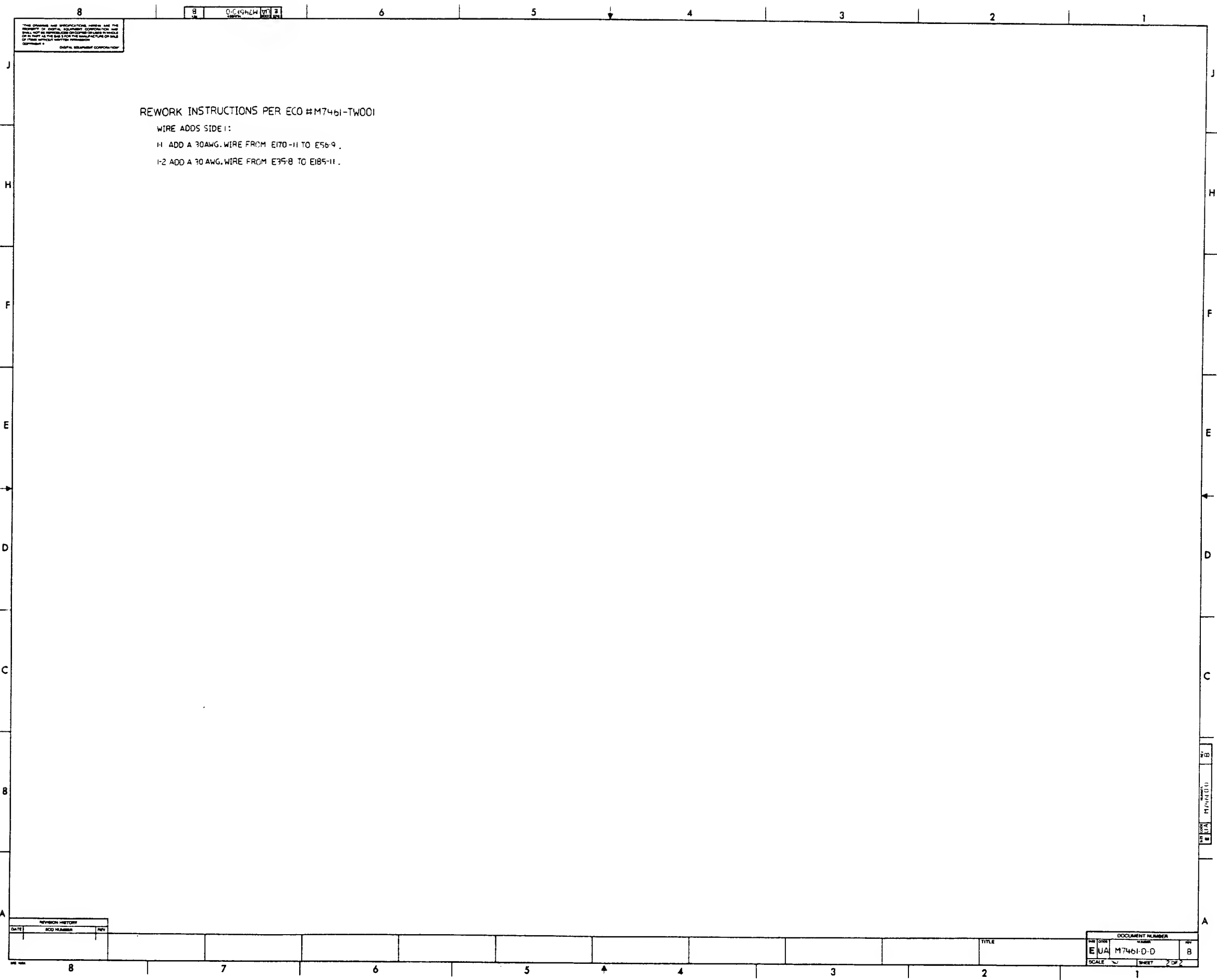
|                            |            |                            |      |                            |      |                            |      |
|----------------------------|------------|----------------------------|------|----------------------------|------|----------------------------|------|
| 8                          | 7          | 6                          | 5    | 4                          | 3    | 2                          | 1    |
| SIGNAL NAME PAGE NUMBER(S) |            | SIGNAL NAME PAGE NUMBER(S) |      | SIGNAL NAME PAGE NUMBER(S) |      | SIGNAL NAME PAGE NUMBER(S) |      |
| SBLB PA 1B L               | SBLB       | SBLD 55 RAISE TR FF L      | SBLD | SBLF ID RECIEVE B7 H       | SBLF | SBLG ID RECIEVE B7 H       | SBLG |
| SBLB PA 11 L               | SBLB       | SBLD 55 RAISE TR T2 H      | SBLD | SBLF MUX ENABLE L          | SBLF | SBLG MUX ENABLE L          | SBLG |
| SBLB RDS FF H              | SBLD,B     | SBLD 55 RAISE TR T2 L      | SBLD | SBLG MD BYTE B PAR H       | SBLG | SBLG MD BYTE B PAR H       | SBLG |
| SBLB RDS FF L              | SBLD,B     | SBLD T2 FORCE HOLD L       | SBLD | SBLG MD BYTE 1 PAR H       | SBLG | SBLG MD BYTE 1 PAR H       | SBLG |
| SBLB SBI CYCLE FF H        | SBLD,B,R   | SBLD TIMEOUT TRP T1 H      | SBLD | SBLG MD PAR B A H          | SBLG | SBLG MD PAR B A H          | SBLG |
| SBLB SBI CYCLE FF L        | SBLD,R     | SBLD U CP READ H           | SBLD | SBLG MD PAR 0 B H          | SBLG | SBLG MD PAR 0 B H          | SBLG |
| SBLB SBI DATA SEL H        | SBLG,B     | SBLD AUTO REFILL FF H      | SBLD | SBLG MD PAR 1 A H          | SBLG | SBLG MD PAR 1 A H          | SBLG |
| SBLB T1 SBI DATA SEL H     | SBLJ,B     | SBLD AUTO REFILL FF L      | SBLD | SBLG MD PAR 1 B H          | SBLG | SBLG MD PAR 1 B H          | SBLG |
| SBLB TIMEOUT ADRS B2 H     | SBLB,F     | SBLD CLOCK PAR REG H       | SBLD | SBLG RCV BB A H            | SBLG | SBLG RCV BB A H            | SBLG |
| SBLB TIMEOUT ADRS B3 H     | SBLB,F     | SBLD FORCE SBI FF L        | SBLD | SBLG RCV B1 A H            | SBLG | SBLG RCV B1 A H            | SBLG |
| SBLB TIMEOUT ADRS B4 H     | SBLF,B     | SBLD HOLD BUSY H           | SBLD | SBLG RCV B2 A H            | SBLG | SBLG RCV B2 A H            | SBLG |
| SBLB TIMEOUT ADRS B5 H     | SBLF,B     | SBLD LATE EXP RD FF H      | SBLD | SBLG RCV B3 A H            | SBLG | SBLG RCV B3 A H            | SBLG |
| SBLB TIMEOUT ADRS B6 H     | SBLF,B     | SBLD LATE EXP RD FF L      | SBLD | SBLG RCV B4 A H            | SBLG | SBLG RCV B4 A H            | SBLG |
| SBLB TIMEOUT ADRS B7 H     | SBLF,B     | SBLD LATE EXP RD L         | SBLD | SBLG RCV B5 A H            | SBLG | SBLG RCV B5 A H            | SBLG |
| SBLB TIMEOUT ADRS B8 H     | SBLB,F     | SBLD READ DATA FF H        | SBLD | SBLG RCV B6 A H            | SBLG | SBLG RCV B6 A H            | SBLG |
| SBLB TIMEOUT ADRS B9 H     | SBLB,F     | SBLD READ DATA FF L        | SBLD | SBLG RCV B7 A H            | SBLG | SBLG RCV B7 A H            | SBLG |
| SBLC MD PAR GEN 0 H        | SBLG,C     | SBLD REC PAR B H           | SBLD | SBLG RCV B8 A H            | SBLG | SBLG RCV B8 A H            | SBLG |
| SBLC MD PAR GEN 1 H        | SBLG,C     | SBLD REC PAR 1 H           | SBLD | SBLG RCV B8 B H            | SBLG | SBLG RCV B8 B H            | SBLG |
| SBLC WRITE DATA BB H       | SBLC,A     | SBLD REC PAR 2 H           | SBLD | SBLG RCV B9 A H            | SBLG | SBLG RCV B9 A H            | SBLG |
| SBLC WRITE DATA B1 H       | SBLC,A     | SBLD REC PAR 3 H           | SBLD | SBLG RCV B9 B H            | SBLG | SBLG RCV B9 B H            | SBLG |
| SBLC WRITE DATA B2 H       | SBLC,A     | SBLD RECIEVE DATA BB H     | SBLD | SBLG RCV 1B A H            | SBLG | SBLG RCV 1B A H            | SBLG |
| SBLC WRITE DATA B3 H       | SBLC,A     | SBLD RECIEVE DATA B1 H     | SBLD | SBLG RCV 1B B H            | SBLG | SBLG RCV 1B B H            | SBLG |
| SBLC WRITE DATA B4 H       | SBLA,C     | SBLD RECIEVE DATA B2 H     | SBLD | SBLG RCV 11 A H            | SBLG | SBLG RCV 11 A H            | SBLG |
| SBLC WRITE DATA B5 H       | SBLA,C     | SBLD RECIEVE DATA B3 H     | SBLD | SBLG RCV 11 B H            | SBLG | SBLG RCV 11 B H            | SBLG |
| SBLC WRITE DATA B6 H       | SBLA,C     | SBLD RECIEVE DATA B4 H     | SBLD | SBLG RCV 12 A H            | SBLG | SBLG RCV 12 A H            | SBLG |
| SBLC WRITE DATA B7 H       | SBLA,C     | SBLD RECIEVE DATA B5 H     | SBLD | SBLG RCV 12 B H            | SBLG | SBLG RCV 12 B H            | SBLG |
| SBLC WRITE DATA B8 H       | SBLC,A     | SBLD RECIEVE DATA B6 H     | SBLD | SBLG RCV 13 A H            | SBLG | SBLG RCV 13 A H            | SBLG |
| SBLC WRITE DATA B9 H       | SBLC,A     | SBLD RECIEVE DATA B7 H     | SBLD | SBLG RCV 13 B H            | SBLG | SBLG RCV 13 B H            | SBLG |
| SBLC WRITE DATA 1B H       | SBLC,A     | SBLD RECIEVE DATA B8 H     | SBLD | SBLG RCV 14 A H            | SBLG | SBLG RCV 14 A H            | SBLG |
| SBLC WRITE DATA 11 H       | SBLC,A     | SBLD RECIEVE DATA B9 H     | SBLD | SBLG RCV 14 B H            | SBLG | SBLG RCV 14 B H            | SBLG |
| SBLC WRITE DATA 12 H       | SBLC,A     | SBLD RECIEVE DATA 1B H     | SBLD | SBLG RCV 15 A H            | SBLG | SBLG RCV 15 A H            | SBLG |
| SBLC WRITE DATA 13 H       | SBLC,A     | SBLD RECIEVE DATA 11 H     | SBLD | SBLG RCV 15 B H            | SBLG | SBLG RCV 15 B H            | SBLG |
| SBLC WRITE DATA 14 H       | SBLC,A     | SBLD RECIEVE DATA 12 H     | SBLD | SBLG READ DATA B0 H        | SBLG | SBLG READ DATA B0 H        | SBLG |
| SBLC WRITE DATA 15 H       | SBLC,A     | SBLD RECIEVE DATA 13 H     | SBLD | SBLG READ DATA B1 H        | SBLG | SBLG READ DATA B1 H        | SBLG |
| SBLD CLOCK HIT REG H       | SBLD,H     | SBLD RECIEVE DATA 14 H     | SBLD | SBLG READ DATA B2 H        | SBLG | SBLG READ DATA B2 H        | SBLG |
| SBLD CP TIMEOUT T1 H       | SBLK,D,B,J | SBLD RECIEVE DATA 15 H     | SBLD | SBLG READ DATA B3 H        | SBLG | SBLG READ DATA B3 H        | SBLG |
| SBLD COIMG 1B READ H       | SBLR,D     | SBLD RESET BUSY FF H       | SBLD | SBLG READ DATA B4 H        | SBLG | SBLG READ DATA B4 H        | SBLG |
| SBLD 13 MISS T1 H          | SBLD,S     | SBLD 55 BUFFER FULL FF H   | SBLD | SBLG READ DATA B5 H        | SBLG | SBLG READ DATA B5 H        | SBLG |
| SBLD INHIBIT SBI H         | SBLD,R     | SBLD START PULSE H         | SBLD | SBLG READ DATA B6 H        | SBLG | SBLG READ DATA B6 H        | SBLG |
| SBLD RAISE TR FF H         | SBLD       | SBLD TRANS PAR L           | SBLD | SBLG READ DATA B7 H        | SBLG | SBLG READ DATA B7 H        | SBLG |
| SBLD RAISE TR FF L         | SBLK,D     | SBLD WAIT INV FF H         | SBLD | SBLG READ DATA B8 H        | SBLG | SBLG READ DATA B8 H        | SBLG |
| SBLD RAISE TR T1 H         | SBLK,D     | SBLF ID ADDR 1 H           | SBLF | SBLG READ DATA B9 H        | SBLG | SBLG READ DATA B9 H        | SBLG |
| SBLD RDS T1 H              | SBLR,D     | SBLF ID ADDR 2 H           | SBLF | SBLG READ DATA 1B H        | SBLG | SBLG READ DATA 1B H        | SBLG |
| SBLD READ DATA T1 H        | SBLD,R,P   | SBLF ID RECIEVE BB H       | SBLF | SBLG READ DATA 11 H        | SBLG | SBLG READ DATA 11 H        | SBLG |
| SBLD READ EH H             | SBLD,S     | SBLF ID RECIEVE B1 H       | SBLF | SBLG READ DATA 12 H        | SBLG | SBLG READ DATA 12 H        |      |











| REVISION HISTORY |            |     |
|------------------|------------|-----|
| DATE             | ECO NUMBER | REV |
|                  |            |     |

| DOCUMENT NUMBER |           | REV    |
|-----------------|-----------|--------|
| EUA             | M7461-D-D | B      |
| SCALE           | SHEET     | 2 OF 2 |

| LINE                      | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                    | QTY | PER VARIATION | REFERENCE DESIGNATOR             |
|---------------------------|------|------------------|-------------|---------|--------------------------------|-----|---------------|----------------------------------|
| VARIATION REVISION LEVEL: |      |                  |             |         |                                | 00  |               |                                  |
| 1                         | 45   | BLANK            |             |         | *** THIS ITEM IS NOT USED ***  | -   |               |                                  |
| 2                         | 46   | BLANK            |             |         | *** THIS ITEM IS NOT USED ***  | -   |               |                                  |
| 3                         | 54   | E-MD-5016078-0-0 | 5016078-01  |         | ETCH BOARD                     | 1   |               |                                  |
| 4                         | 1    |                  | 1012784-00  |         | .047 MFD 50V +80-20% CER       | 78  |               | C1-C78                           |
| 5                         | 49   |                  | 1017472-00  |         | 10 MFD 35V +50-10% AL EL       | 7   |               | C79-C85                          |
| 6                         | 2    |                  | 1103041-00  |         | PIV= 8 IO= 50 MA               | 2   |               | D1,D2                            |
| 7                         | 50   |                  | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS | 1   |               |                                  |
| 8                         | 53   | BLANK            |             |         | *** THIS ITEM IS NOT USED ***  | -   |               |                                  |
| 9                         | 48   |                  | 1300202-00  |         | 47.0 .25 W 5.0 % CF            | 8   |               | R97-R104                         |
| 10                        | 11   |                  | 1301782-00  |         | 121.0 .50 W 1.0 % RN60D-F10    | 18  |               | R3-R10,R19-R26,R59,R62           |
| 11                        | 3    |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF           | 8   |               | R41,R43,R45,R47,R49,R51,R53,R55  |
| 12                        | 4    |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF           | 16  |               | R42,R44,R46,R48,R50,R52,R54,R56, |
|                           |      |                  |             |         |                                |     | CONT          | R63-R70                          |
| 13                        | 5    |                  | 1300271-00  |         | 220.0 .25 W 5.0 % CF           | 2   |               | R60,R61                          |
| 14                        | 6    |                  | 1300295-00  |         | 330.0 .25 W 5.0 % CF           | 4   |               | R1,R35,R57,R79                   |
| 15                        | 7    |                  | 1300365-00  |         | 1.0 K .25 W 5.0 % CF           | 2   |               | R39,R40                          |
| 16                        | 8    |                  | 1301424-00  |         | 680.0 .25 W 5.0 % CF           | 4   |               | R2,R36,R80,R58                   |
| 17                        | 9    |                  | 1301972-00  |         | 270.0 .25 W 5.0 % CF           | 16  |               | R11-R18,R27-R34                  |
| 18                        | 10   |                  | 1302957-00  |         | 121.0 .25 W 1.0 % RN55D-F10    | 8   |               | R71-R78                          |
| 19                        | 17   |                  | 1910545-00  |         | 74S112 FF-JK DUAL,EDGE TRIG    | 3   |               | E17,E30,E101                     |
| 20                        | 47   | BLANK            |             |         | *** THIS ITEM IS NOT USED ***  | -   |               |                                  |
| 21                        | 44   | BLANK            |             |         | *** THIS ITEM IS NOT USED ***  | -   |               |                                  |
| 22                        | 24   |                  | 1911469-00  |         | DEC 8640 RECEIVER,BUS,QUAD,U   | 1   |               | E122                             |
| 23                        | 28   |                  | 1912089-00  |         | 74S85 CMPRTR-48IT MAGNITUD     | 4   |               | E158,E161,E162,E175              |
| 24                        | 32   |                  | 1912586-00  |         | DM 85S68N REGISTER,64BIT EDGE  | 4   |               | E143-E146                        |
| 25                        | 33   |                  | 1912731-00  |         | DEC 8646A TRANSCEIVER,48IT BUS | 11  |               | E18,E19,E72,E103-E105,E137,E138, |
|                           |      |                  |             |         |                                |     | CONT          | E153-E155                        |
| 26                        | 34   |                  | 1912746-01  |         | 74S37-1BUFFER-GATE             | 3   |               | E116,E129,E134                   |
| 27                        | 39   |                  | 1913788-00  |         | 26S10 TRANSCEIVER,BUS,QUA      | 4   |               | E6,E8,E42,E43                    |
| 28                        | 40   |                  | 1913839-00  |         | LS165 SHIFT REG.,88IT          | 8   |               | E20,E21,E40,E55,E106,E108,E117,  |

| REVISION HISTORY |            |     | BASIC PART NO: M7461    |    | DRN:             | S.MANSOR   | DATE: 27-MAY-83      | D I G I T A L            |            |             |        |
|------------------|------------|-----|-------------------------|----|------------------|------------|----------------------|--------------------------|------------|-------------|--------|
| ENG              | ECO NUMBER | REV | SECTION A OF A          |    |                  |            |                      | TITLE PARTS LIST         |            |             |        |
| ---              | INITIAL    | A   | SECTION VARIATION INDEX |    | CHK'D:           | E.T.GERRY  | DATE: 10-JUN-83      | INTERFACE HIGH BIT (SBH) |            |             |        |
|                  |            |     | (A)                     | 00 |                  |            |                      |                          |            |             |        |
|                  |            |     | (B)                     |    |                  |            |                      |                          |            |             |        |
|                  |            |     | (C)                     |    | DES.ENG:         | DAVE CIRKA | DATE: 10-JUN-83      | DOCUMENT NUMBER          |            |             |        |
|                  |            |     | (D)                     |    |                  |            |                      | SIZE                     | CODE       | NUMBER      | REV    |
|                  |            |     | (E)                     |    |                  |            |                      |                          |            |             |        |
|                  |            |     | (F)                     |    | RESP.ENG.:       | DAVE CIRKA | DATE: 13-SEP-83      | K                        | PL         | M7461-0-D8P | A      |
|                  |            |     | (H)                     |    |                  |            |                      |                          |            |             |        |
|                  |            |     | (J)                     |    |                  |            |                      |                          |            |             |        |
|                  |            |     | (K)                     |    | MFG.ENG.:        | M.KRYSAK   | DATE: 13-SEP-83      | RELEASE DATE: 11-OCT-83  |            |             |        |
|                  |            |     | (L)                     |    |                  |            |                      |                          |            |             |        |
|                  |            |     | (M)                     |    | ASSEMBLY NUMBER: |            | TOP DOCUMENT NUMBER: |                          | FILE NAME: |             | EDIT # |
|                  |            |     | (N)                     |    | E-UA-M7461-0-0   |            | B-DD-M7461-0-0       |                          | Z3940A.PLS |             | 13     |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."

AUTOMATED BY PRTLST.40(50)

PARTS LIST

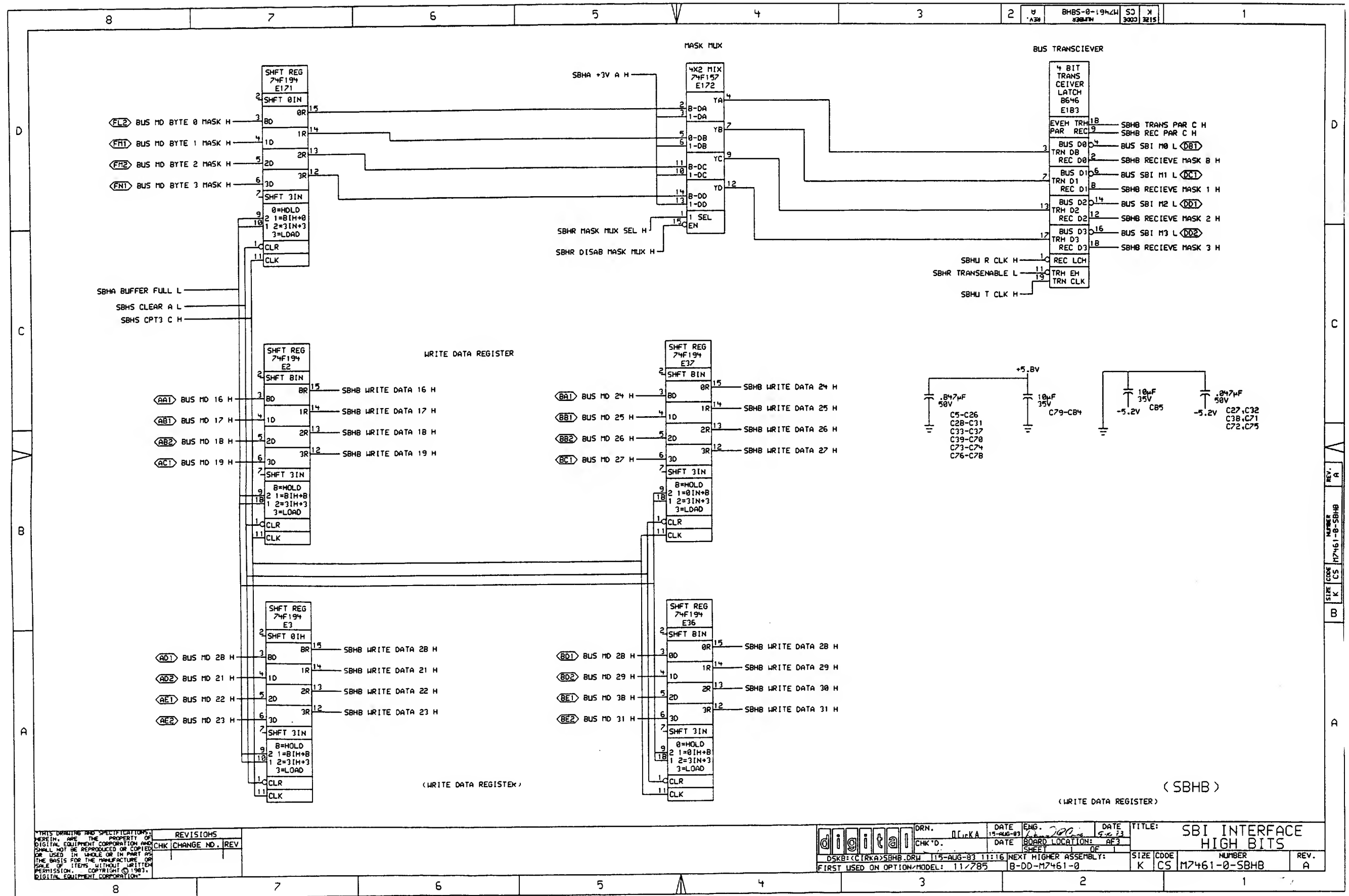
SHEET A2 OF A2

| LINE                      | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                      | QTY | PER VARIATION | REFERENCE DESIGNATOR   |
|---------------------------|------|--------------|-------------|---------|----------------------------------|-----|---------------|--|
| VARIATION REVISION LEVEL: |      |              |             |         |                                  | Q0  |               |  |
| 29                        | 38   |              | 1921010-01  |         | 74F373 OCTAL TRANSPARENT LA      | 9   | CONT          | E118   |
| 30                        | 12   |              | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN        | 8   | CONT          | E1,E35,E44,E53,E95,E99,E142,<br>E159,E187  |
| 31                        | 30   |              | 1921306-01  |         | 74F02 NOR GATE,QUAD,2-IN         | 3   | CONT          | E9,E15,E31,E62,E100,E115,E199,<br>E102   |
| 32                        | 13   |              | 1921307-01  |         | 74F04 HEX INVERTER               | 10  | CONT          | E82,E114,E184<br>E14,E46,E48,E66,E83,E93,E113,<br>E123,E139,E173   |
| 33                        | 31   |              | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN         | 6   |               | E16,E26,E80,E147,E152,E188   |
| 34                        | 14   |              | 1921309-01  |         | 74F10 NAND GATE,TRIPLE,3-I       | 2   |               | E59,E112   |
| 35                        | 15   |              | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN        | 3   |               | E45,E47,E51  |
| 36                        | 43   |              | 1921312-01  |         | 74F32 OR GATE,QUAD,2-IN          | 1   |               | E60  |
| 37                        | 16   |              | 1921314-01  |         | 74F74 FF-D,DUAL,POS.,EDGE        | 8   |               | E11,E12,E32,E33,E84,E157,E197,<br>E198   |
| 38                        | 29   |              | 1921315-01  |         | 74F86 EXCLUSIVE OR GATE,QU       | 2   | CONT          | E91,E160   |
| 39                        | 27   |              | 1921316-01  |         | 74F138 DECODER/DEMUX,1-OF-8      | 4   |               | E110,E127,E130,E140  |
| 40                        | 35   |              | 1921318-01  |         | 74F151 MUX,8-IN                  | 16  | CONT          | E79,E96-E98,E132,E135,E148,E149,<br>E151,E178-E181,E194-E196   |
| 41                        | 18   |              | 1921319-01  |         | 74F153 MUX,DUAL,4-IN             | 9   | CONT          | E24,E25,E27,E39,E41,E76,E78,<br>E176,E192  |
| 42                        | 19   |              | 1921320-01  |         | 74F157 MUX,QUAD,2-IN             | 4   |               | E109,E172,E174,E191  |
| 43                        | 37   |              | 1921322-01  |         | 74F161 8INARY COUNTER,PRES       | 3   |               | E49,E141,E136  |
| 44                        | 20   |              | 1921323-01  |         | 74F174 FF-D,HEX                  | 10  |               | E5,E22,E50,E57,E58,E65,E74,E75,<br>E89,E156  |
| 45                        | 22   |              | 1921324-01  |         | 74F175 FF-D,QUAD                 | 11  | CONT          | E10,E13,E34,E63,E167,E168,E182,<br>E183,E200,E68,E119  |
| 46                        | 21   |              | 1921327-01  |         | 74F194 SHIFT REG,UNIV,8IDIR      | 24  | CONT          | E28,E29,E81,E124,E125,E131,E133,<br>E150,E163-E166,E169,E177,E186,<br>E189,E193,E2,E3,E36,E37,E64,<br>E171,E85 |
| 47                        | 26   |              | 1921330-01  |         | 74F257 MUX,QUAD,2-IN             | 8   | CONT          | E4,E7,E23,E56,E73,E121,E170,E185   |
| 48                        | 25   |              | 1921332-01  |         | 74F280 PARITY GEN/CHECK,9-B      | 4   |               | E38,E54,E107,E126  |
| 49                        | 36   |              | 1921333-01  |         | 74F283 8INARY FULL ADDER,4       | 1   |               | E190   |
| 50                        | 23   |              | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL QUA | 8   |               | E52,E69-E71,E86-E88,E120   |
| 51                        | 52   |              | 23373A1-00  |         | A1-10                            | 1   |               | E61  |
| 52                        | 41   |              | 23649A2-00  |         | A2-09                            | 1   |               | E90  |
| 53                        | 42   |              | 23650A2-00  |         | A2-09                            | 1   |               | E92  |
| 54                        | 51   |              | 9000024-01  |         | EYELET,ROLLED 0.12100X0.192      | 12  |               |  |

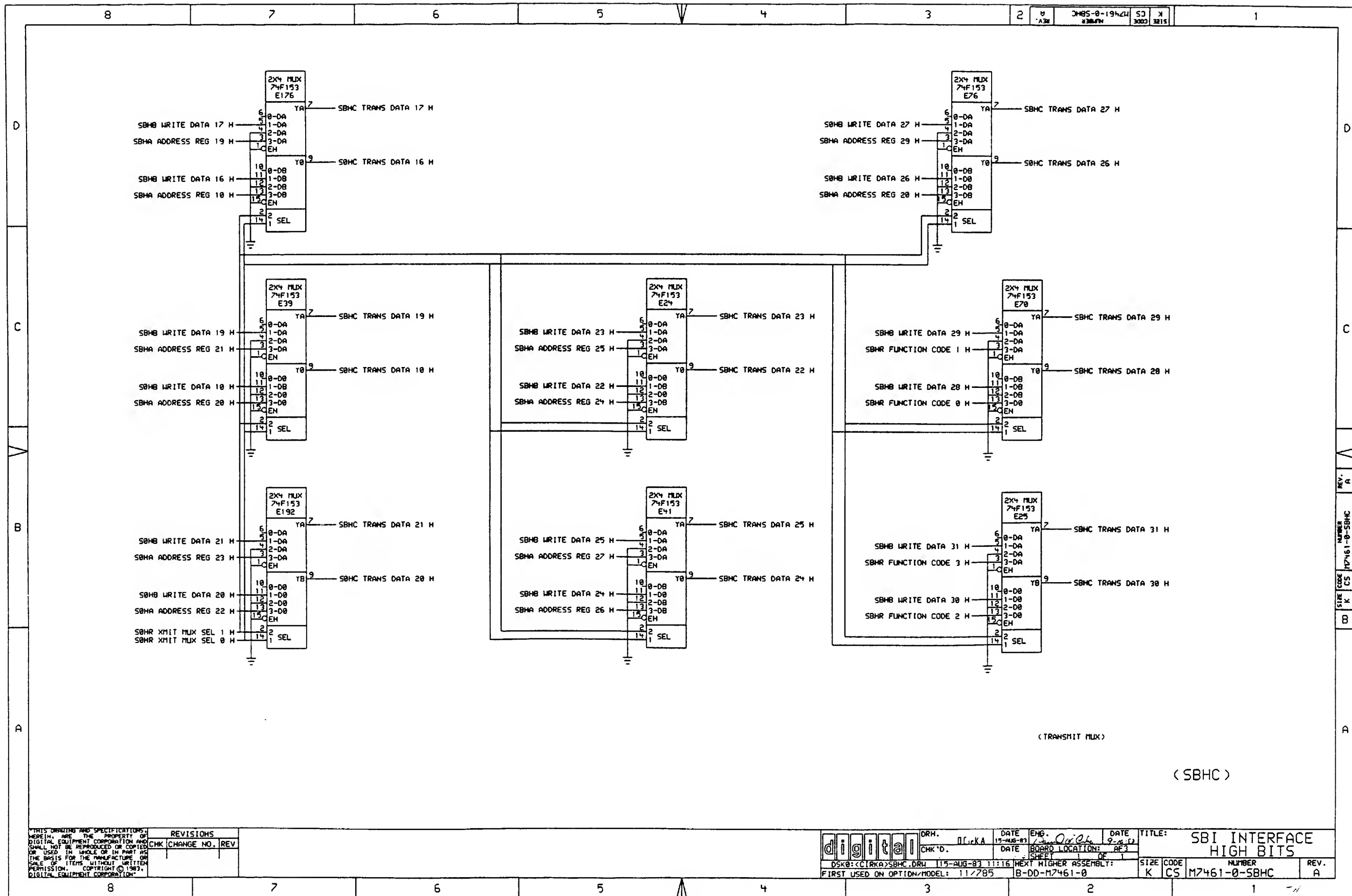
55 NOTE: LOCATIONS R81-R96 ARE AN ENGINEERING OPTION-DO NOT INSERT.  
56 NOTE: I.C. SPARES:E66,C77,E94,E111,E128

| D | I | G | I | T | A | L | TITLE                    | SECTION A | OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|--------------------------|-----------|------|------|------|-----------------|-----|
|   |   |   |   |   |   |   | INTERFACE HIGH BIT (SBH) |           |      | K    | PL   | M7461-0-DBP     | A   |







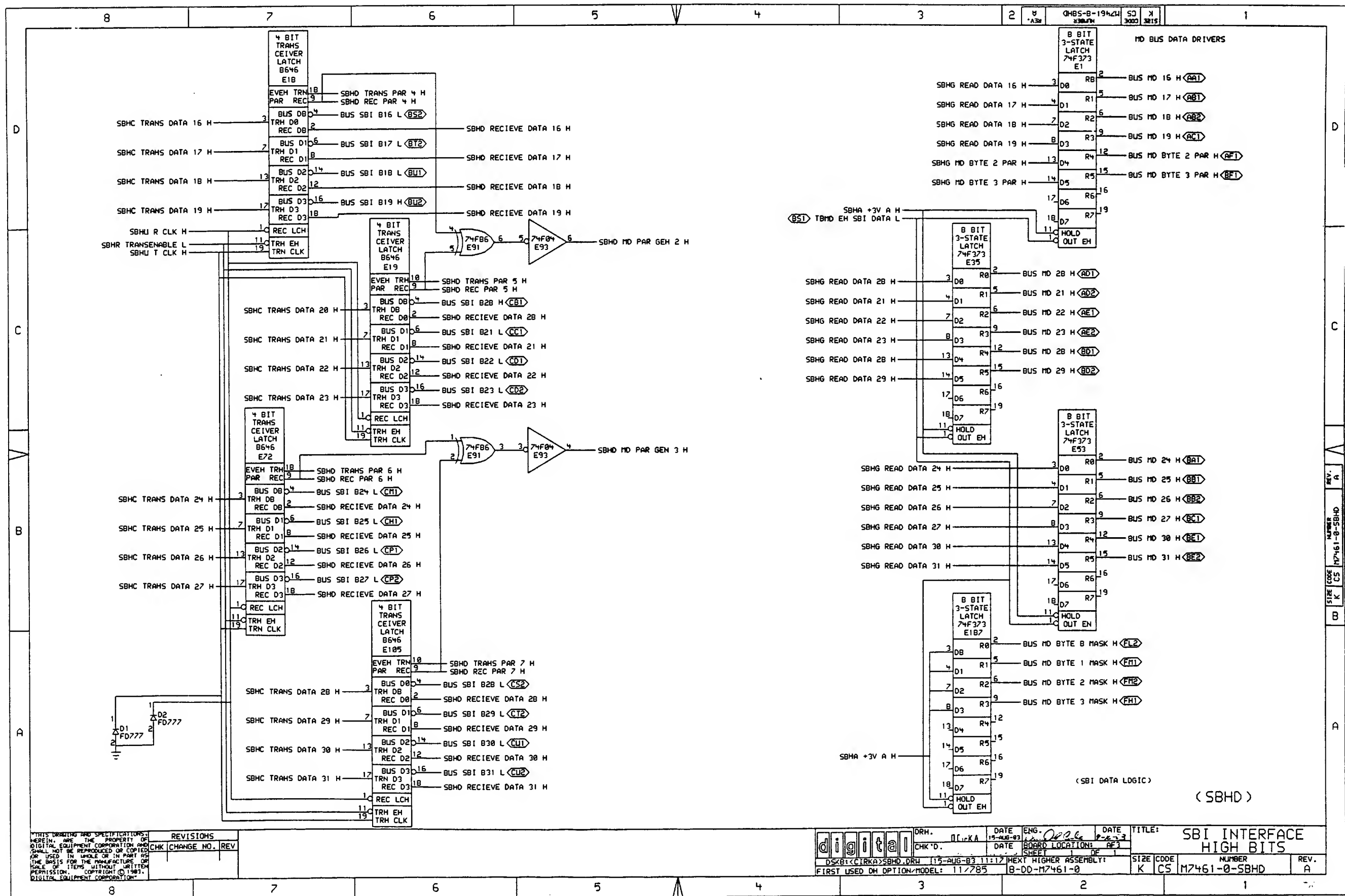


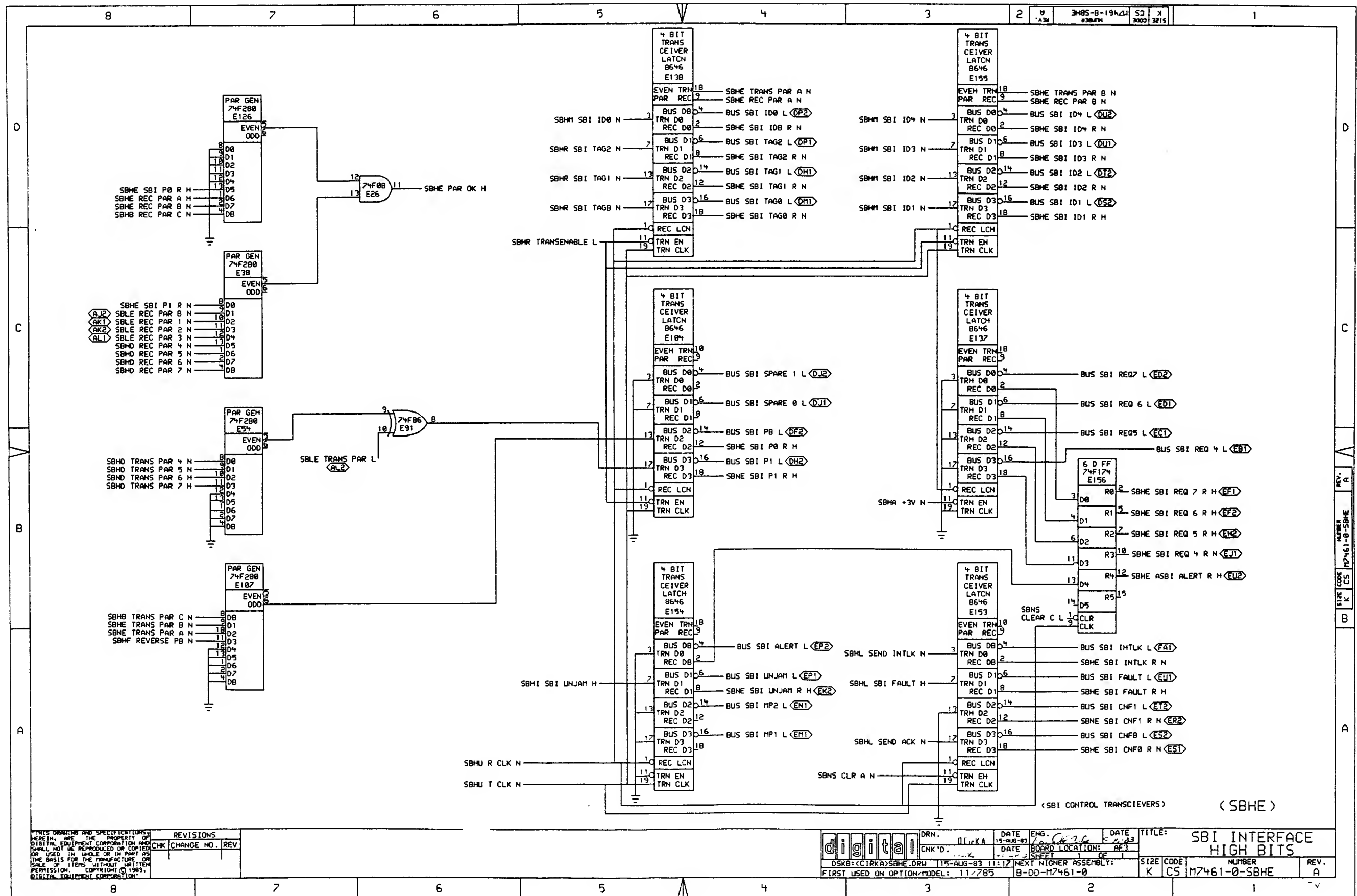
THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION.

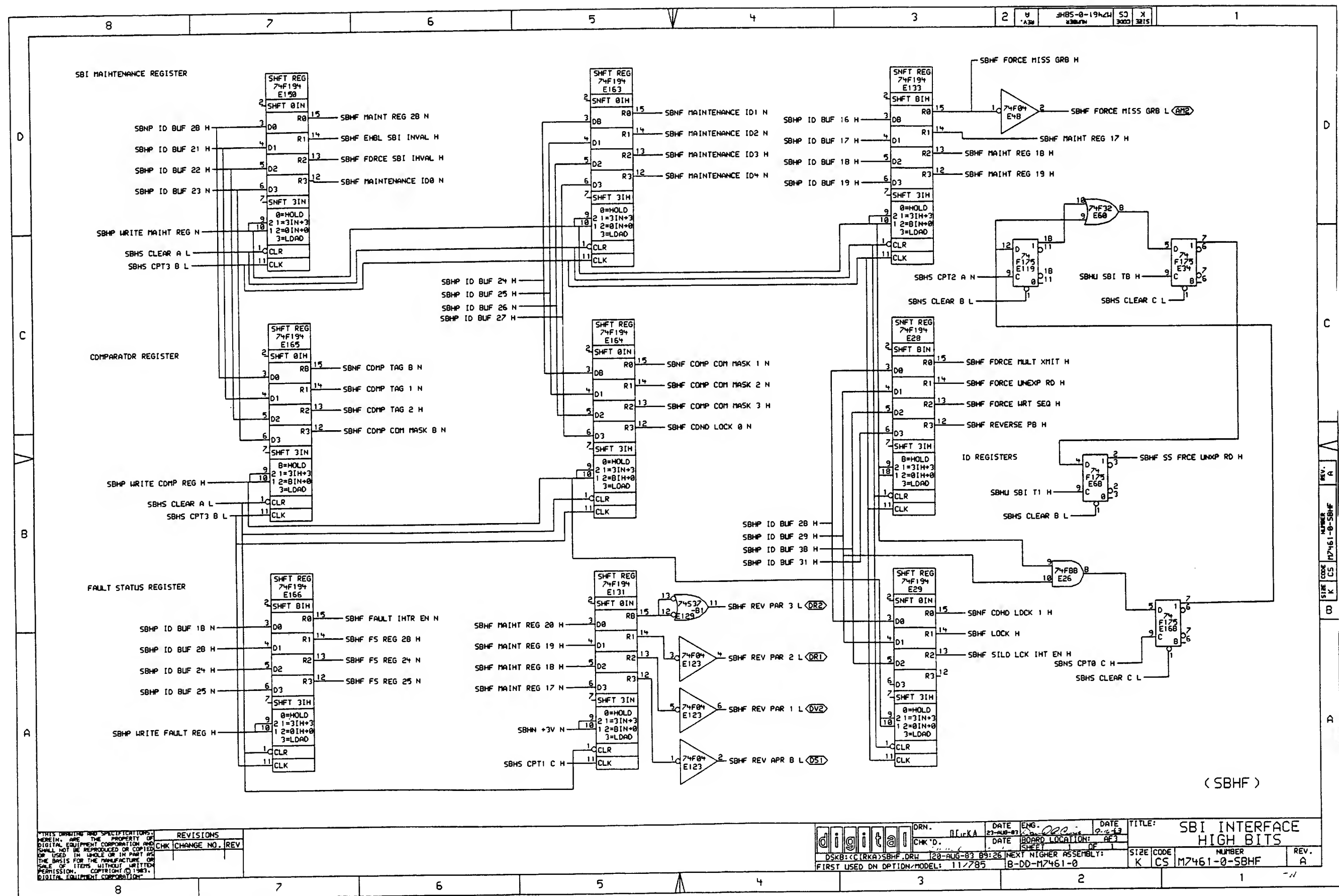
| REVISIONS |                |
|-----------|----------------|
| CHK       | CHANGE NO. REV |
|           |                |

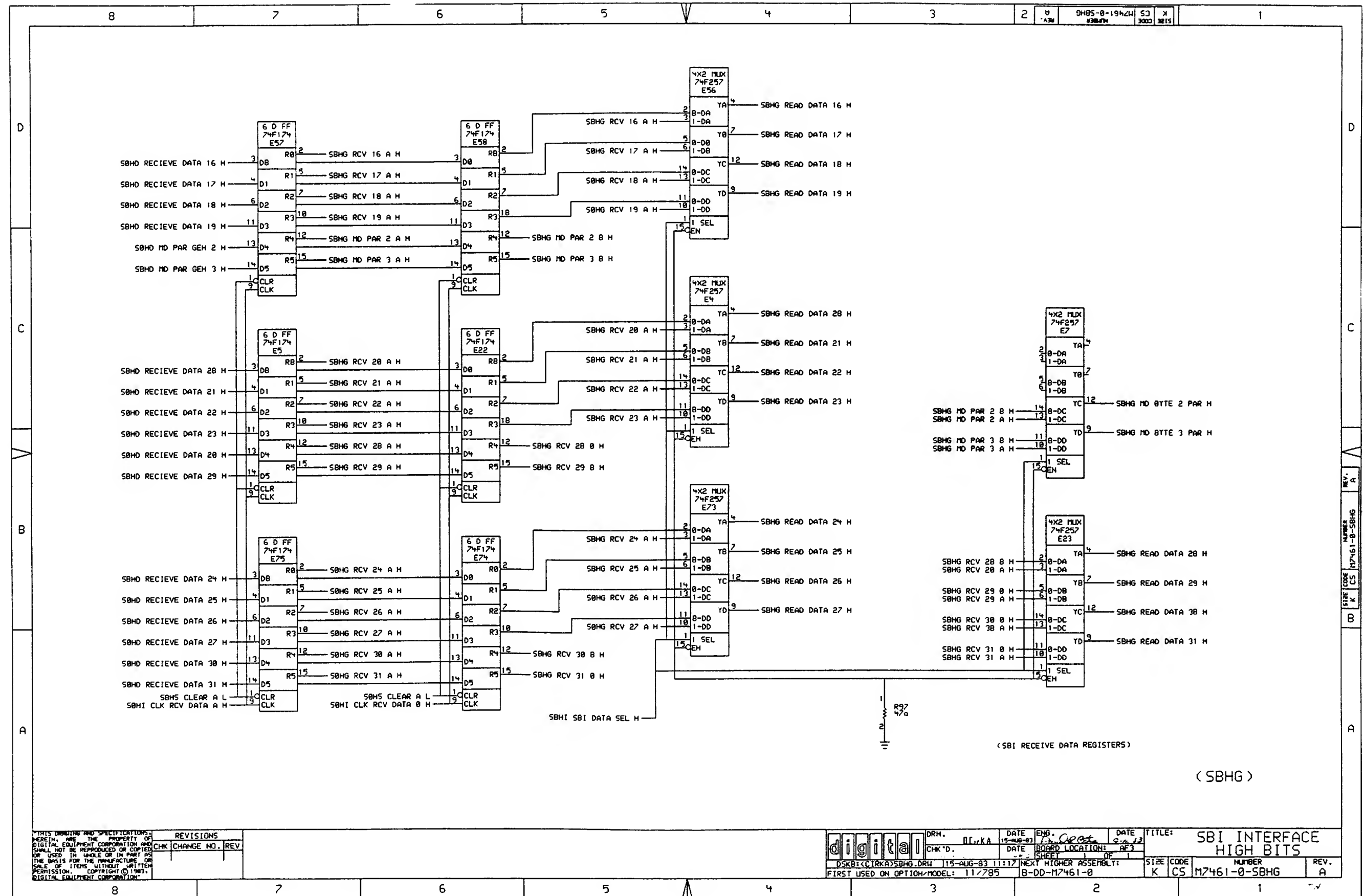
|                                    |        |                  |           |                       |                                   |           |
|------------------------------------|--------|------------------|-----------|-----------------------|-----------------------------------|-----------|
| digital                            | DRH.   | DATE             | ENG.      | DATE                  | TITLE: SBI INTERFACE<br>HIGH BITS |           |
|                                    | CHK'D. | 11-AUG-83        | 11-AUG-83 | 9-8-83                |                                   |           |
| DSK0: C:\RKA>SBHC.DRW              |        | 115-AUG-83 11:16 |           | NEXT HIGHER ASSEMBLY: |                                   | SIZE CODE |
| FIRST USED ON OPTION/MODEL: 11/785 |        | B-DD-M7461-0     |           |                       |                                   | NUMBER    |
|                                    |        |                  |           |                       |                                   | REV.      |
|                                    |        |                  |           |                       |                                   | A         |

|               |  |
|---------------|--|
| SBI INTERFACE |  |
| HIGH BITS     |  |
| M7461-0-SBHC  |  |









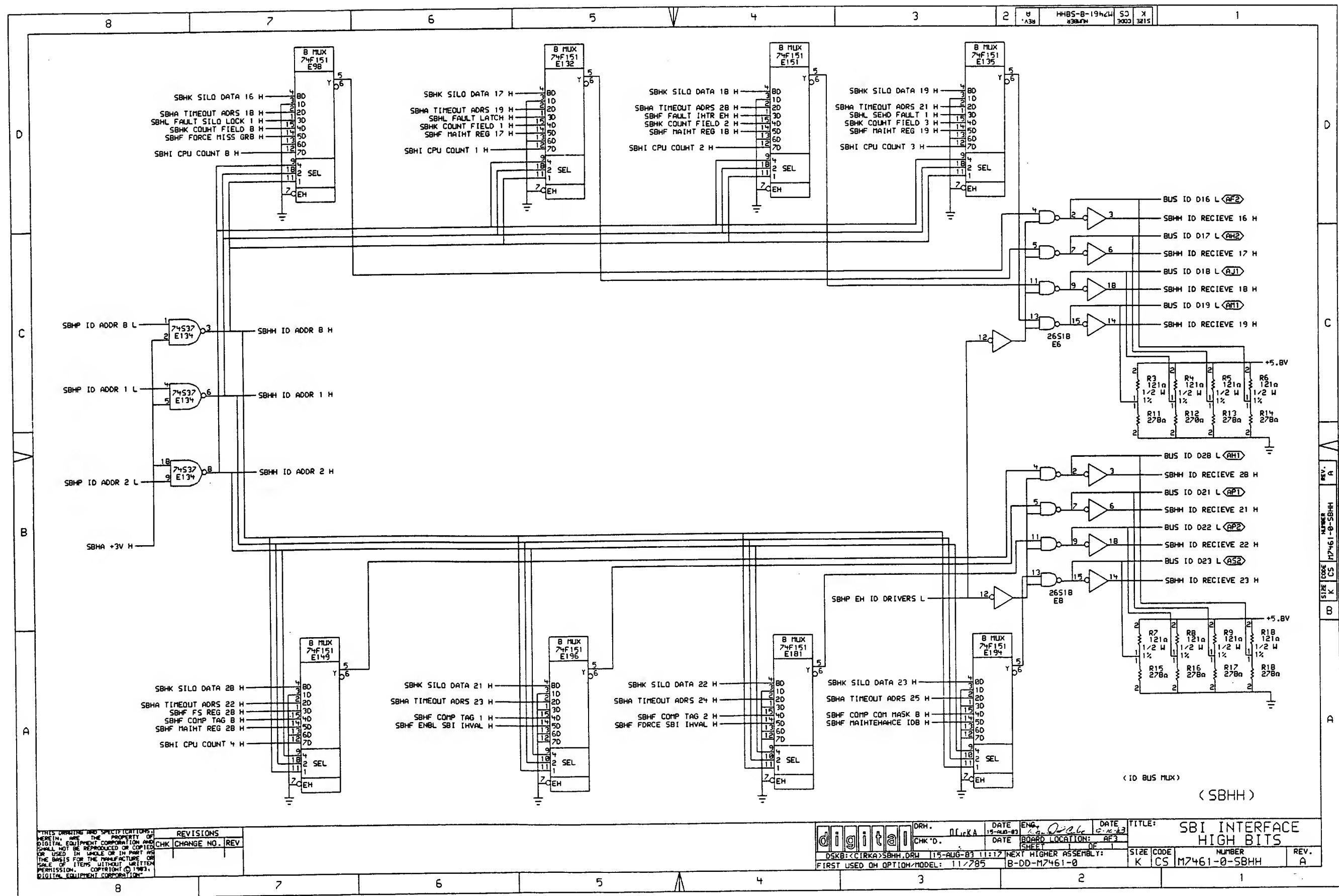
THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART FOR THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

digital

DR. **PLRKA** DATE **15-AUG-83** ENG. **PLRKA** DATE **15-AUG-83**  
 CHK'D. **PLRKA** DATE **15-AUG-83** BOARD LOCATION: **AF3**  
 SHEET **1**  
 DSKB: C:\RKA\SBHG.DRW 115-AUG-83 11:17 NEXT HIGHER ASSEMBLY:  
 FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7461-0

TITLE: **SBI INTERFACE HIGH BITS**  
 SIZE CODE NUMBER REV.  
 K CS M7461-0-SBHG A

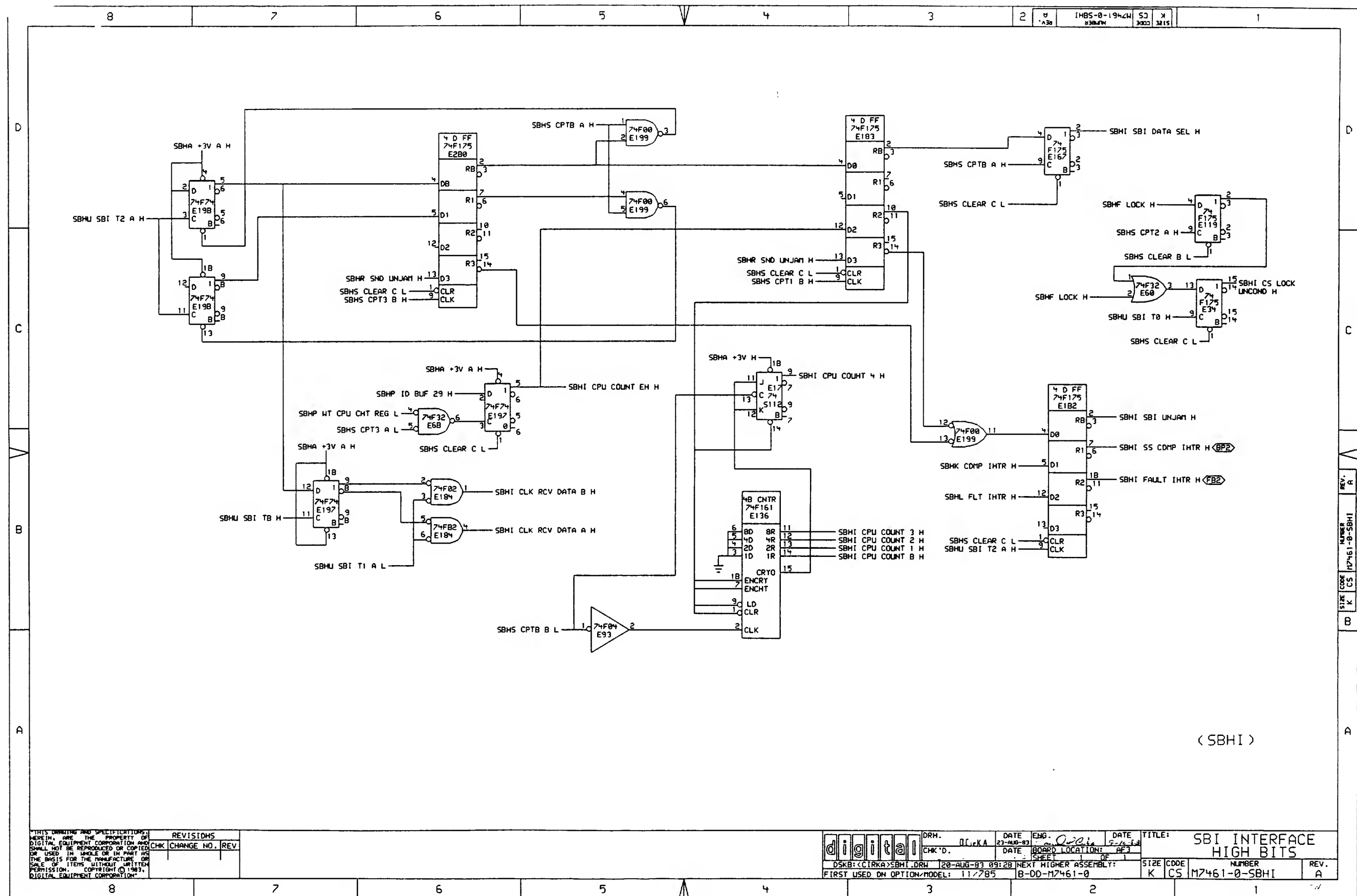


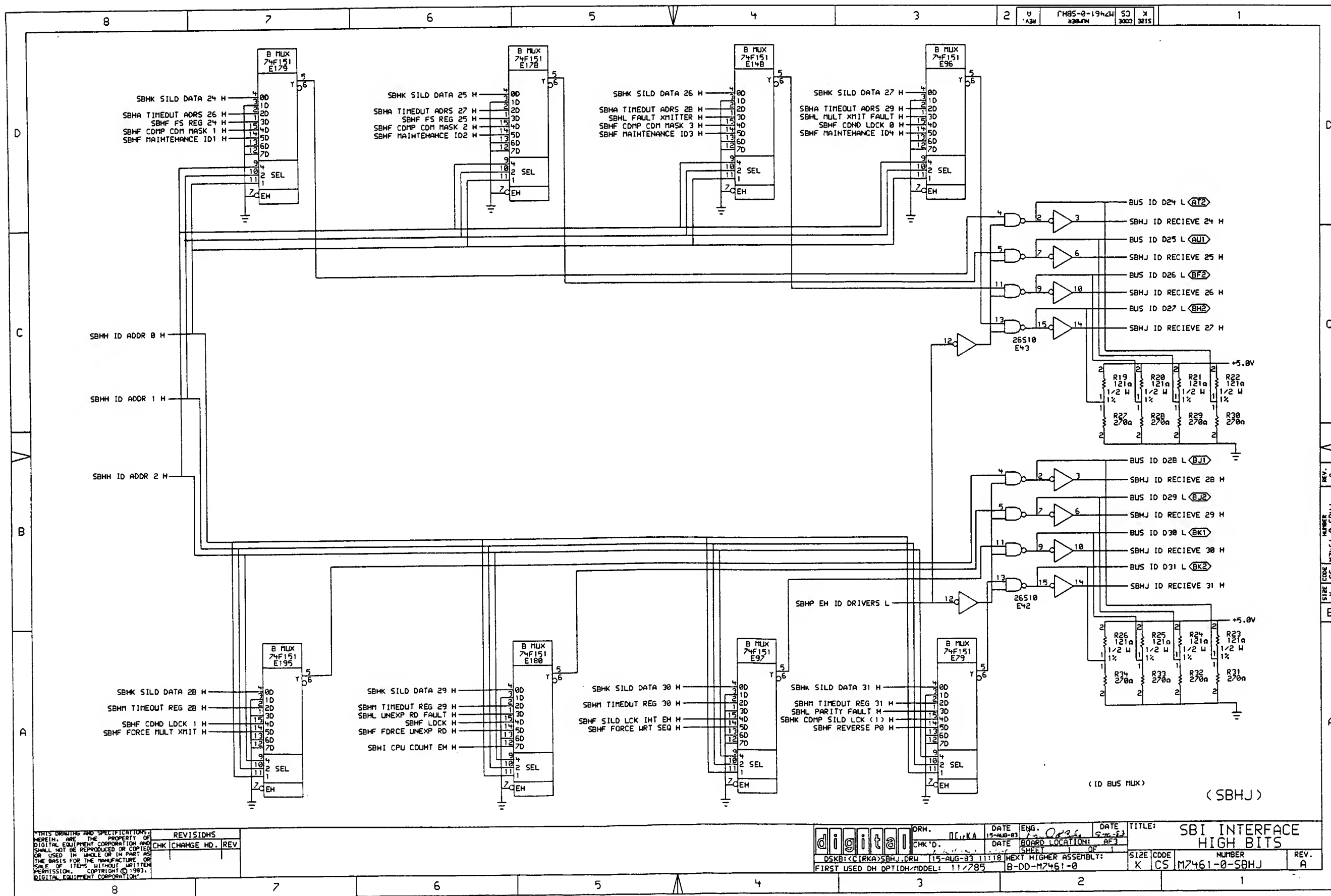
THIS DRAWING AND SPECIFICATIONS  
HEREIN, ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION.

REVISIONS  
CHK CHANGE NO. REV

digital DRH. 11-11-83 DATE 11-11-83  
CHK'D. 11-11-83 DATE 11-11-83  
SHEET 1 OF 1  
DSKB: CIRKA-SBHH.DRW 11-11-83 NEXT HIGHER ASSEMBLY:  
FIRST USED ON OPTION/MODEL: 11-11-83 B-DD-M7461-0

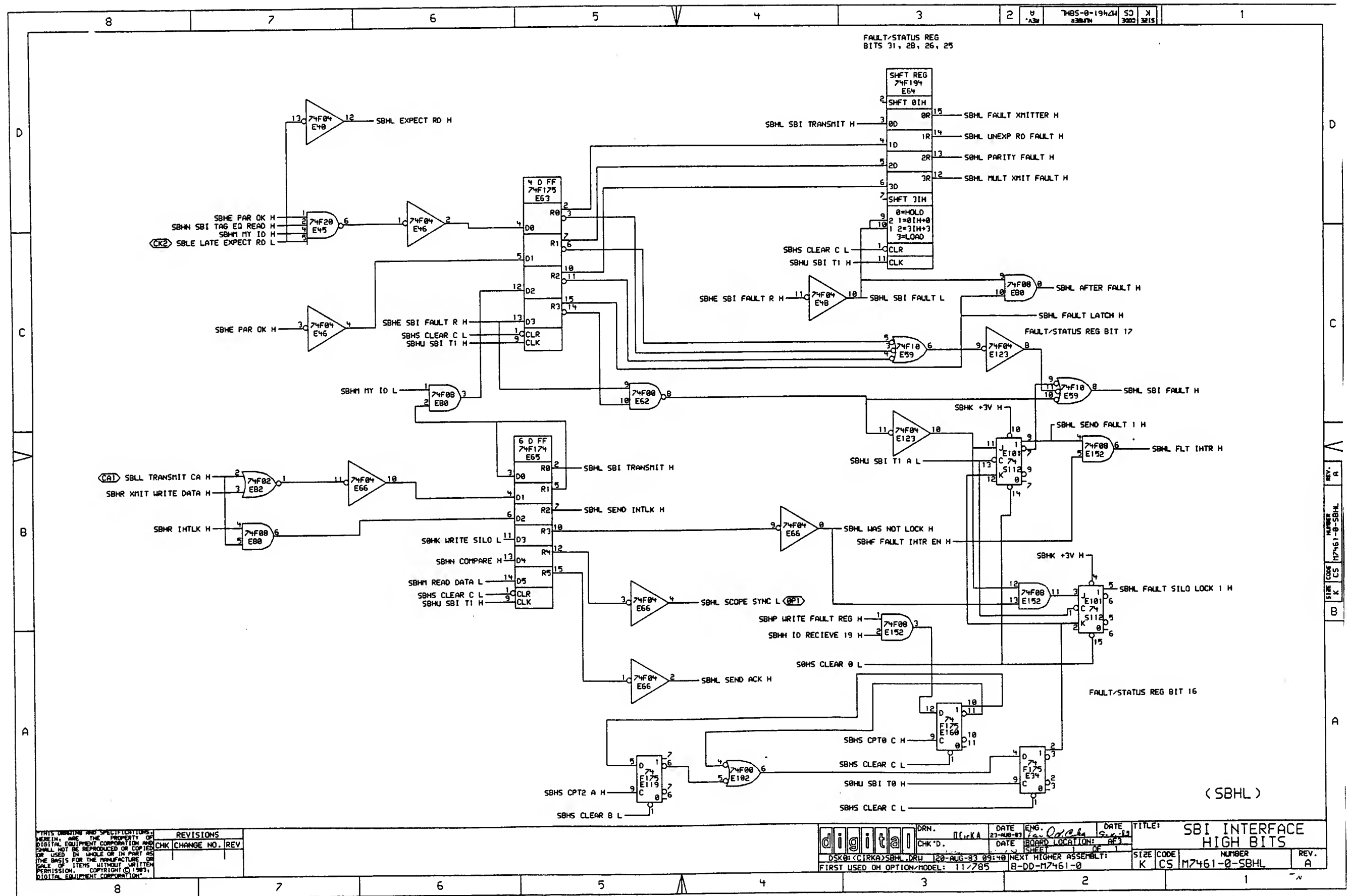
TITLE: SBI INTERFACE  
HIGH BITS  
SIZE CODE NUMBER REV.  
K CS M7461-0-SBHH A

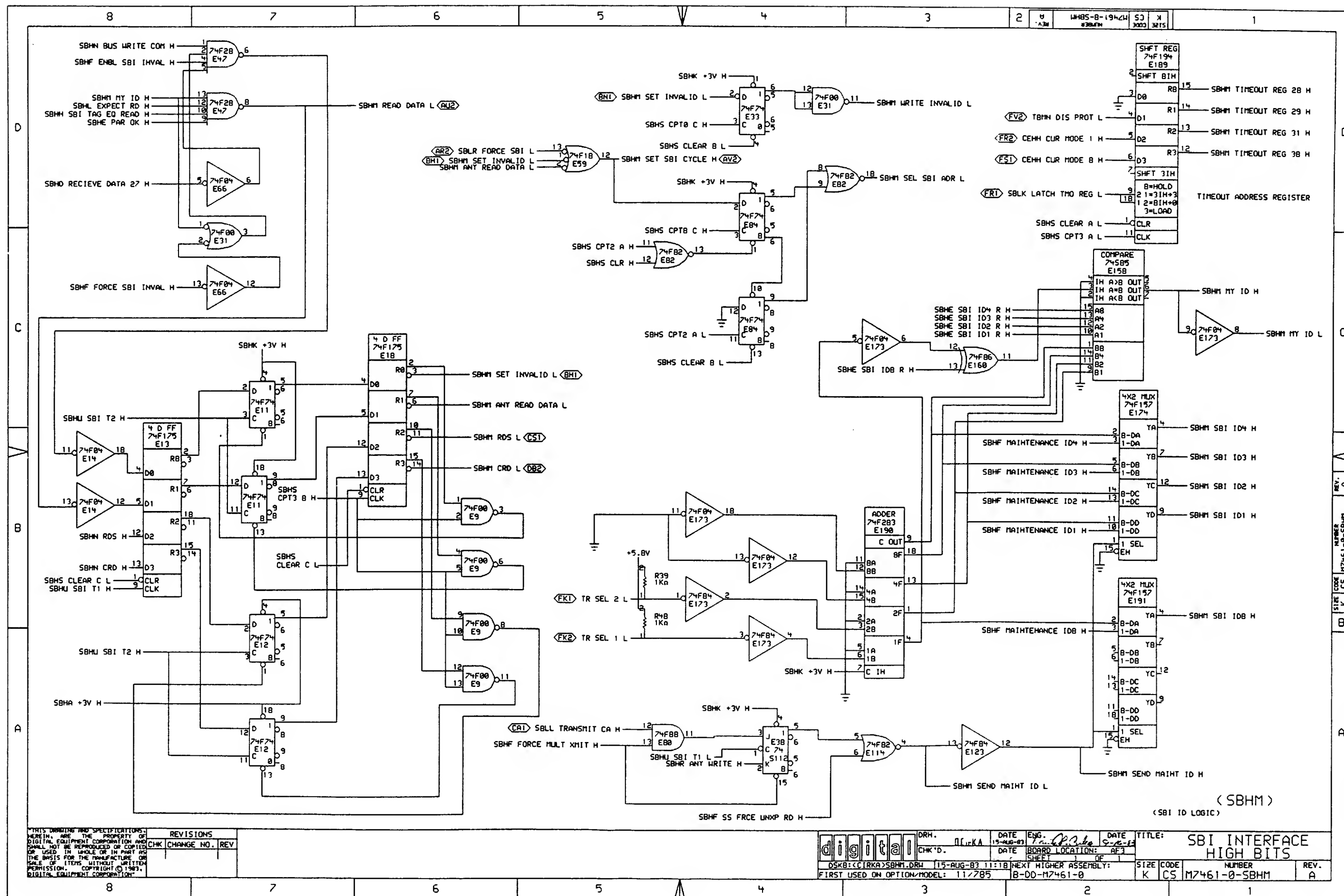






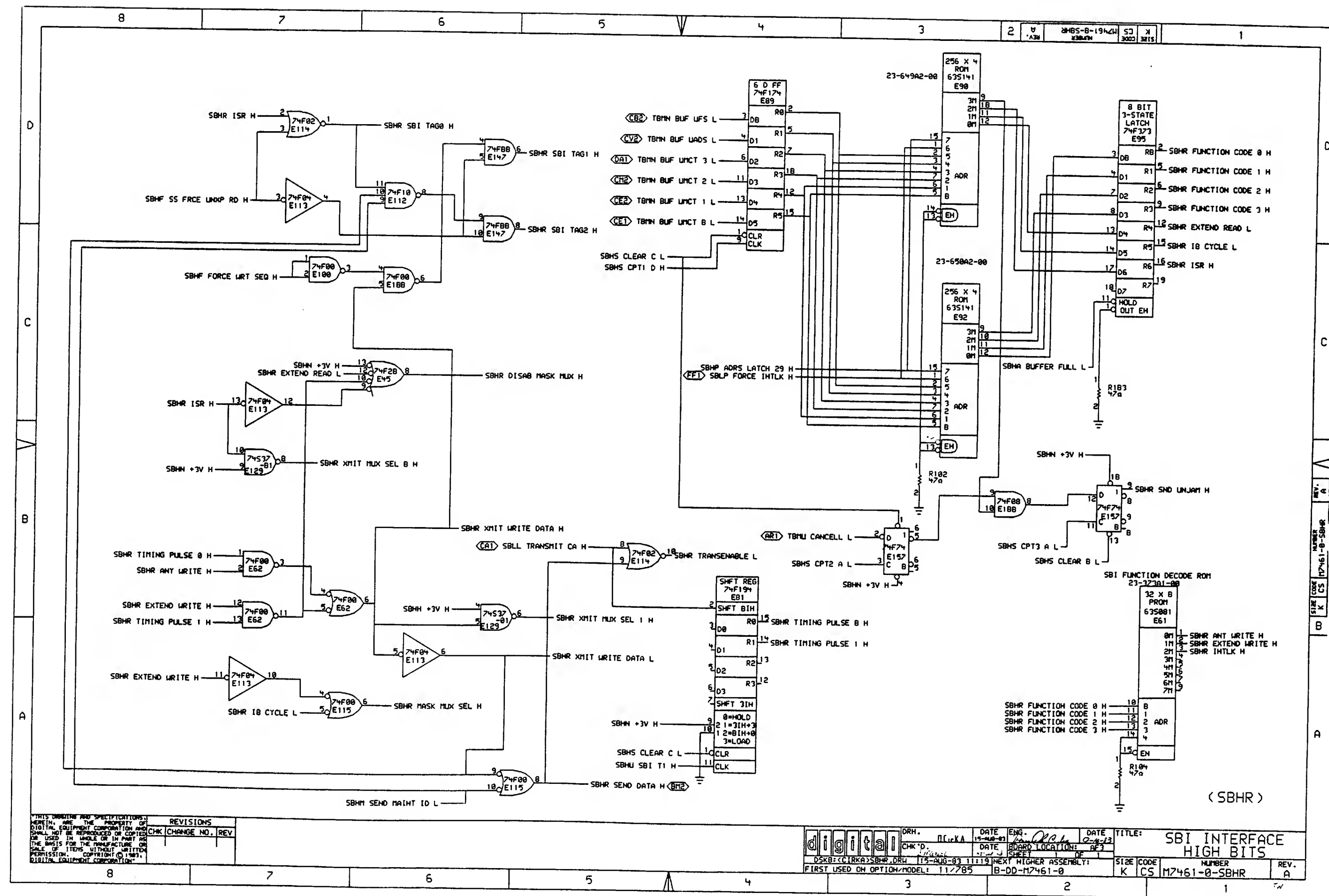








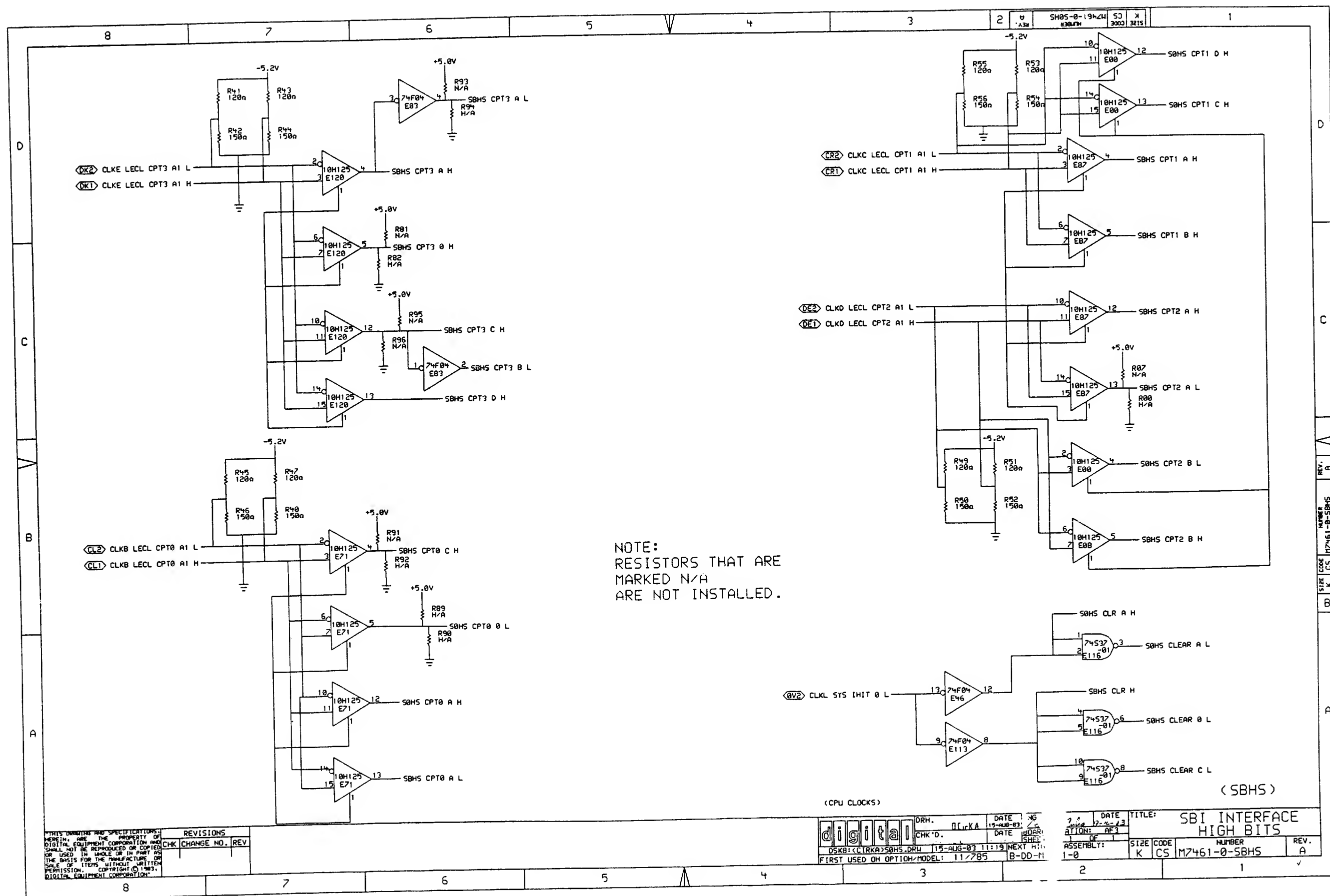




THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART OR THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983. DIGITAL EQUIPMENT CORPORATION.

| REV. | CHK | CHANGE NO. | REV |
|------|-----|------------|-----|
| 1    |     |            |     |

|                                    |  |              |                 |                       |              |                         |
|------------------------------------|--|--------------|-----------------|-----------------------|--------------|-------------------------|
| digital                            |  | DRH.         | DATE            | ENG.                  | DATE         | TITLE:                  |
| CHK'D.                             |  | DATE         | BOARD LOCATION: | REV.                  |              | SBI INTERFACE HIGH BITS |
| DSKB:CCIRKASBHR.DRW                |  | 15-AUG-83    | 11:19           | NEXT HIGHER ASSEMBLY: | SIZE         | CODE                    |
| FIRST USED ON OPTION MODEL: 11/785 |  | B-DD-M7461-0 |                 |                       | K            | CS                      |
|                                    |  |              |                 |                       | NUMBER       | REV.                    |
|                                    |  |              |                 |                       | M7461-0-SBHR | A                       |

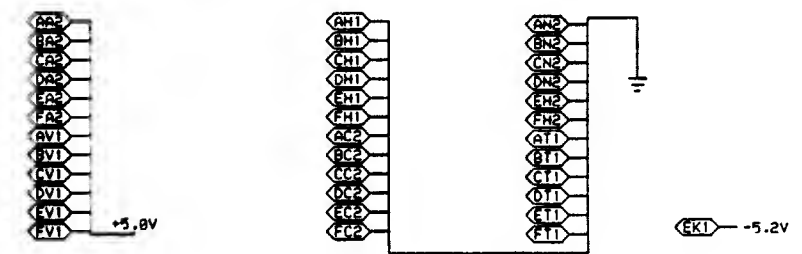




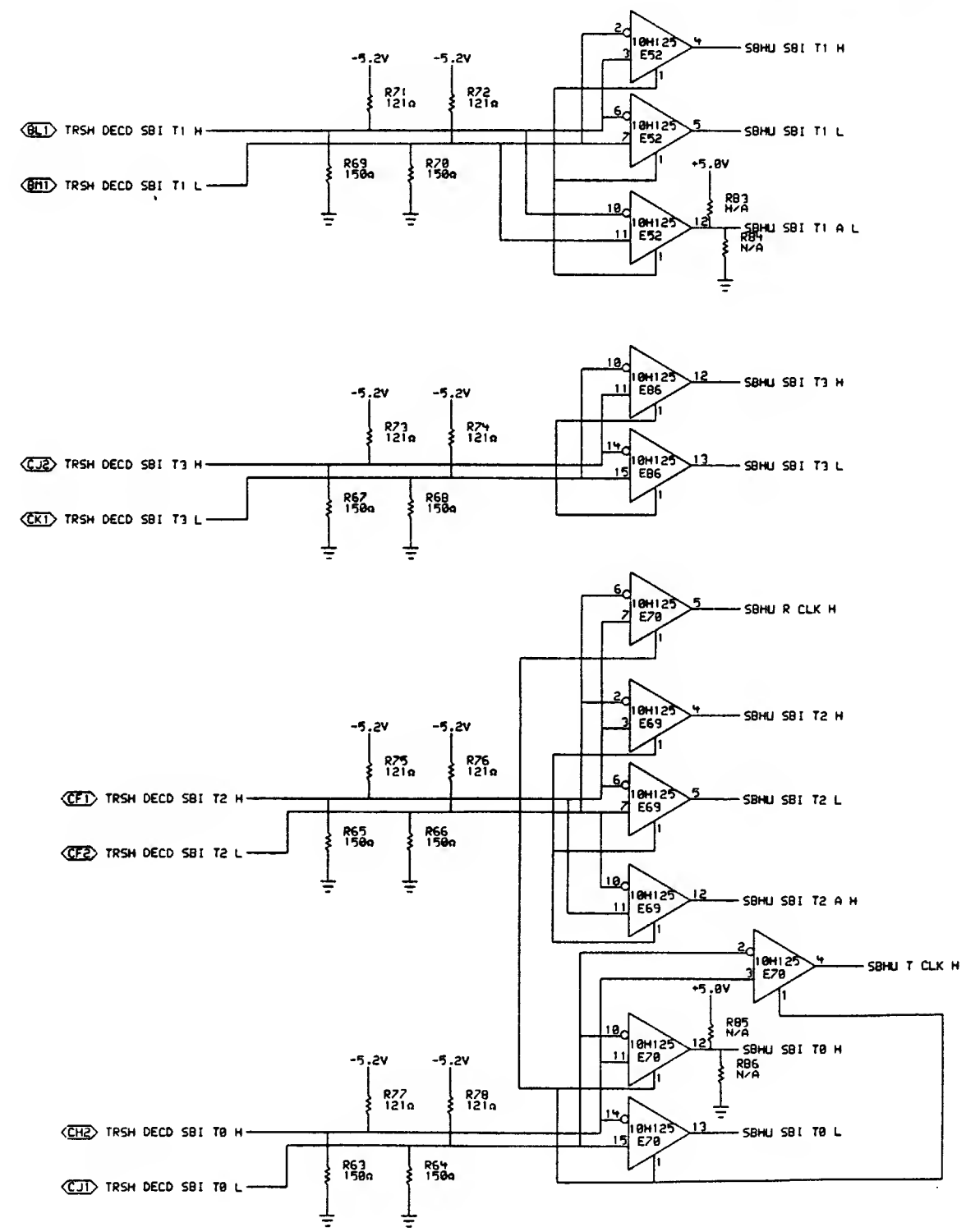


8 7 6 5 4 3 2 1

7485-0-19424 S3 X 3000 3815



NOTE:  
RESISTORS THAT ARE MARKED N/A  
ARE NOT INSTALLED.



(SBHU)

|  |   |              |         |      |        |      |      |      |                |  |
|--|---|--------------|---------|------|--------|------|------|------|----------------|--|
| THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION. | REVISIONS   |              | digital | DRW. | CHK'D. | DATE | ENG. | DATE | TITLE:         |  |
|  | CHK   | CHANGE NO.   |         | REV  | DATE   | DATE | DATE | DATE | SBHU INTERFACE |  |
|  | DSK8: C:\CIRKA\SBHU.DRW 115-AUG-83 11:19 NEXT HIGHER ASSEMBLY: B-DD-M7461-0 |              |         |      |        |      |      |      | HIGH BITS      |  |
|  | FIRST USED ON OPTION/MODEL: 11/785  |              |         |      |        |      |      |      |                |  |
| SIZE   |   | CODE         | NUMBER  | REV. |        |      |      |      |                |  |
| K  | CS  | M7461-0-SBHU | A       |      |        |      |      |      |                |  |

8 7 6 5 4 3 2 1



|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| 8   | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| <div> <div> <div>SIGNAL NAME</div> <div>PAGE NUMBER(S)</div> </div> <div> <div>SBHB WRITE DATA 18 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 19 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 20 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 21 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 22 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 23 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 24 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 25 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 26 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 27 H</div> <div>SBHB,T,C</div> </div> </div> <div> <div>SBHB WRITE DATA 28 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 29 H</div> <div>SBHB,T,C</div> </div> <div> <div>SBHB WRITE DATA 30 H</div> <div>SBHC,B,T</div> </div> <div> <div>SBHC TRANS DATA 16 H</div> <div>SBHD,C</div> </div> <div> <div>SBHC TRANS DATA 17 H</div> <div>SBHD,C</div> </div> <div> <div>SBHC TRANS DATA 18 H</div> <div>SBHD,C</div> </div> <div> <div>SBHC TRANS DATA 19 H</div> <div>SBHD,C</div> </div> <div> <div>SBHC TRANS DATA 20 H</div> <div>SBHD,C</div> </div> <div> <div>SBHC TRANS DATA 21 H</div> <div>SBHD,C</div> </div> |   |   |   |   |   |   |   |

SBHC TRANS DATA 22 H

SBHD,C

SBHC TRANS DATA 23 H

SBHD,C

SBHC TRANS DATA 24 H

SBHC,D

SBHC TRANS DATA 25 H

SBHC,D

SBHC TRANS DATA 26 H

SBHD,C

SBHC TRANS DATA 27 H

SBHD,C

SBHC TRANS DATA 28 H

SBHC,D

SBHC TRANS DATA 29 H

SBHC,D

SBHC TRANS DATA 30 H

SBHC,D

SBHC TRANS DATA 31 H

SBHC,D

SBHD MD PAR GEH 2 H

SBHG,D

SBHD MD PAR GEH 3 H

SBHG,D

SBHD REC PAR 4 H

SBHD,E

SBHD REC PAR 5 H

SBHD,E

SBHD REC PAR 6 H

SBHE,D

SBHD REC PAR 7 H

SBHE,D

SBHD RECIEVE DATA 16 H

SBHD,G

SBHD RECIEVE DATA 17 H

SBHD,G

SBHD RECIEVE DATA 18 H

SBHD,G

SBHD RECIEVE DATA 19 H

SBHD,G

SBHD RECIEVE DATA 20 H

SBHG,D

SBHD RECIEVE DATA 21 H

SBHG,D

SBHD RECIEVE DATA 22 H

SBHG,D

SBHD RECIEVE DATA 23 H

SBHG,D

SBHD RECIEVE DATA 24 H

SBHD,G

SBHD RECIEVE DATA 25 H

SBHD,G

SBHD RECIEVE DATA 26 H

SBHD,G

SBHD RECIEVE DATA 27 H

SBHM,D,G

SBHD RECIEVE DATA 28 H

SBHG,D,H

SBHD RECIEVE DATA 29 H

SBHG,H,D

SIGNAL NAME

PAGE NUMBER(S)

SBHD RECIEVE DATA 30 H

SBHG,D,H

SBHD RECIEVE DATA 31 H

SBHG,D,H

SBHD TRANS PAR 4 H

SBHD,E

SBHD TRANS PAR 5 H

SBHD,E

SBHD TRANS PAR 6 H

SBHE,D

SBHD TRANS PAR 7 H

SBHE,D

SBHE ASBI ALERT R H

SBHE

SBHE PAR OK H

SBHE,L,M

SBHE REC PAR A H

SBHE

SBHE REC PAR B H

SBHE

SBHE SBI CNF0 R H

SBHK,E

SBHE SBI CNF1 R H

SBHK,E

SBHE SBI FAULT R H

SBHL,E

SBHE SBI ID0 R H

SBHE,P,M

SBHE SBI ID1 R H

SBHE,M,P

SBHE SBI ID2 R H

SBHE,M,P

SBHE SBI ID3 R H

SBHE,M,P

SBHE SBI ID4 R H

SBHE,M,P

SBHE SBI INTLK R H

SBHK,E

SBHE SBI P0 R H

SBHE

SBHE SBI P1 R H

SBHE

SBHE SBI REQ 4 R H

SBHE

SBHE SBI REQ 5 R H

SBHE

SBHE SBI REQ 6 R H

SBHE

SBHE SBI REQ 7 R H

SBHE

SBHE SBI TAG0 R H

SBHM,E,P

SBHE SBI TAG1 R H

SBHM,E,P

SBHE SBI TAG2 R H

SBHM,E,P

SBHE SBI UNJAM R H

SBHE

SBHE TRANS PAR A H

SBHE

SBHE TRANS PAR B H

SBHE

SBHF COMP COM MASK 0 H

SBHM,F,H

SBHF COMP COM MASK 1 H

SBHM,F,J

SBHF COMP COM MASK 2 H

SBHM,F,J

SBHF COMP COM MASK 3 H

SBHJ,H,F

SBHF COMP TAG B H

SBHM,H,F

SBHF COMP TAG I H

SBHM,F,H

SBHF COMP TAG 2 H

SBHM,F,H

SBHF COND LOCK B H

SBHM,J,F

SBHF COND LOCK I H

SBHM,F,J

SBHF ENBL SBI INVAL H

SBHM,F,H

SBHF FAULT INTR EH H

SBHM,L,F

SBHF FORCE MISS GRB H

SBHF,H

SBHF FORCE MISS GRB L

SBHF

SBHF FORCE MULT XMIT H

SBHF,M,J

SBHF FORCE SBI INVAL H

SBHM,F,H

SBHF FORCE UNEXP RD H

SBHF,J

SBHF FORCE WRT SEQ H

SBHF,J,R

SBHF FS REG 20 H

SBHM,F

SBHF FS REG 24 H

SBHF,J

SIGNAL NAME

PAGE NUMBER(S)

SBHF FS REG 25 H

SBHF,J

SBHF LOCK H

SBHF,I,J

SBHF MAINT REG 17 H

SBHF,H

SBHF MAINT REG 18 H

SBHF,H

SBHF MAINT REG 19 H

SBHF,H

SBHF MAINT REG 20 H

SBHF,H

SBHF MAINTENANCE ID0 H

SBHF,H,M,H

SBHF MAINTENANCE ID1 H

SBHF,M,H,J

SBHF MAINTENANCE ID2 H

SBHF,M,H,J

SBHF MAINTENANCE ID3 H

SBHJ,F,M,H

SBHF MAINTENANCE ID4 H

SBHM,J,F,M

SBHF REV APR B L

SBHF

SBHF REV PAR 1 L

SBHF

SBHF REV PAR 2 L

SBHF

SBHF REV PAR 3 L

SBHF

SBHF REVERSE PB H

SBHF,J,E

SBHF SILD LCK INT EN H

SBHK,F,J

SBHF SS FRCE UNXP RD H

SBHF,R,M

SBHG MD BYTE 2 PAR H

SBHD,G

SBHG MD BYTE 3 PAR H

SBHD,G

SBHG MD PAR 2 A H

SBHG

SBHG MD PAR 2 B H

SBHG

SBHG MD PAR 3 A H

SBHG

SBHG MD PAR 3 B H

SBHG

SBHG RCV 16 A H

SBHG

SBHG RCV 17 A H

SBHG

SBHG RCV 18 A H

SBHG

SBHG RCV 19 A H

SBHG

SBHG RCV 20 A H

SBHG

SBHG RCV 21 A H

SBHG

SBHG RCV 22 A H

SBHG

SBHG RCV 23 A H

SBHG

SBHG RCV 24 A H

SBHG

SBHG RCV 25 A H

SBHG

SBHG RCV 26 A H

SBHG

SBHG RCV 27 A H

SBHG

SBHG RCV 28 A H

SBHG

SBHG RCV 29 A H

SBHG

SBHG RCV 29 B H

SBHG

SBHG RCV 30 A H

SBHG

SBHG RCV 30 B H

SBHG

SBHG RCV 31 A H

SBHG

SBHG RCV 31 B H

SBHG

SBHG READ DATA 16 H

SBHD,G,A

SBHG READ DATA 17 H

SBHD,G,A

SBHG READ DATA 18 H

SBHD,G,A

SBHG READ DATA 19 H

SBHD,G

SBHG READ DATA 20 H

SBHG,D,A

SBHG READ DATA 21 H

SBHG,D,A

NOTES:  
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

(SBHW)













AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A1 OF A2

| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                      | QTY | PER VARIATION | REFERENCE DESIGNATOR            |
|------|------|------------------|-------------|---------|----------------------------------|-----|---------------|---------------------------------|
|      |      |                  |             |         |                                  |     |               |                                 |
|      |      |                  |             |         | VARIATION REVISION LEVEL:        | 00  |               |                                 |
|      |      |                  |             |         |                                  | 82  |               |                                 |
| 1    | 1    | D-MD-5016077-0-0 | 5016077-01  |         | CACHE ADDRESS METRIX             | 1   |               |                                 |
| 2    | 2    |                  | 1013466-07  |         | 220.0 MMF 50V 5% CER             | 8   |               | C50-C57                         |
| 3    | 3    |                  | 1013466-19  |         | 470.0 MMF 50V 5% CER             | 26  |               | C900-C925                       |
| 4    | 4    |                  | 1017472-00  |         | 10 MFD 35V +75-10% AL EL         | 7   |               | C3-C9                           |
| 5    | 5    |                  | 1301972-00  |         | 270.0 .25 W 5.0 % CF             | 1   |               | R500                            |
| 6    | 6    |                  | 1300229-00  |         | 100.0 .25 W 5.0 % CF             | 34  |               | R100-R107,R900-R925             |
| 7    | 7    |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF             | 8   |               | R10,R12,R14,R16,R22,R24,R26,R28 |
| 8    | 8    |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF             | 11  |               | R9,R11,R13,R15,R21,R23,R25,R27, |
|      |      |                  |             |         |                                  |     | CONT          | R200,R201,R501                  |
| 9    | 9    |                  | 1921332-02  |         | 74F280A PARITY GEN/CHECK,9-B     | 6   |               | E31,E32,E45,E46,E59,E60         |
| 10   | 10   |                  | 1301424-00  |         | 680.0 .25 W 5.0 % CF             | 3   |               | R2,R30,R998                     |
| 11   | 11   |                  | 1300295-00  |         | 330.0 .25 W 5.0 % CF             | 17  |               | R1,R29,R999,R3-R8,R700-R707     |
| 12   | 12   |                  | 2114523-03  |         | 2147H-1 4K MOS RAM 35NS 18       | 38  |               | E106-E114,E122-E131,E139-E147,  |
|      |      |                  |             |         |                                  |     | CONT          | E155-E164                       |
| 13   | 13   |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN        | 1   |               | E86                             |
| 14   | 14   |                  | 1921321-01  |         | 74F158 MUX,QUAD,2-IN             | 2   |               | E16,E30                         |
| 15   | 15   |                  | 1913788-00  |         | 26S10 TRANSCEIVER,BUS,QUA        | 2   |               | E15,E29                         |
| 16   | 16   |                  | 1010978-36  | .1      | MFD 50V 10% CER                  | 15  |               | C48,C49,C58-C69,C700            |
| 17   | 17   |                  | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN         | 1   |               | E36                             |
| 18   | 18   |                  | 1921306-01  |         | 74F02 NOR GATE,QUAD,2-IN         | 1   |               | E50                             |
| 19   | 19   |                  | 1921314-01  |         | 74F74 FF-D,DUAL,POS.,EDGE        | 1   |               | E77                             |
| 20   | 20   |                  | 1911469-00  |         | DEC 8640 RECEIVER,BUS,QUAD,U     | 1   |               | E58                             |
| 21   | 21   |                  | 1913839-00  |         | LS165 SHIFT REG.,8BIT            | 8   |               | E33,E34,E47-E49,E61-E63         |
| 22   | 22   |                  | 9105740-55  |         | WIRE(WRAP) 30AWG KYNAR UL14      | A/R |               |                                 |
| 23   | 23   |                  | 1913888-01  |         | DC 102A EQUALS CHECKER 8BIT      | 12  |               | E39-E42,E67-E70,E95-E98         |
| 24   | 24   |                  | 2121818-01  |         | MOS STATIC RAM 256X4 SEPARATE I/ | 14  |               | E1-E14                          |
| 25   | 25   | BLANK            |             |         | *** THIS ITEM IS NOT USED ***    | -   |               |                                 |
| 26   | 26   |                  | 1920572-01  |         | 74F244 BUFFER/LINE DRIVER,0      | 2   |               | E76,E90                         |
| 27   | 27   |                  | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN        | 2   |               | E44,E92                         |
| 28   | 28   |                  | 1921332-01  |         | 74F280 PARITY GEN/CHECK,9-B      | 12  |               | E17-E23,E37,E72-E75             |

| REVISION HISTORY |             |     | BASIC PART NO: M7462    |  | DRN: P.GROSSE         |  | DATE: 29-MAR-83      |  | D I G I T A L           |      |             |     |
|------------------|-------------|-----|-------------------------|--|-----------------------|--|----------------------|--|-------------------------|------|-------------|-----|
| ENG              | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D: E.T.GERRY      |  | DATE: 20-SEP-83      |  | TITLE PARTS LIST        |      |             |     |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  | DES.ENG: J.STICKNEY   |  | DATE: 29-MAR-83      |  | DOCUMENT NUMBER         |      |             |     |
| JS               | M7462-TW001 | B   | [A] 00                  |  | RESP.ENG.: J.STICKNEY |  | DATE: 29-MAR-83      |  | SIZE                    | CODE | NUMBER      | REV |
| JS               | M7462-TW002 | C   | [B]                     |  | MFG.ENG.: M.KRYSAK    |  | DATE: 30-SEP-83      |  | K                       | PL   | M7462-0-D8P | C   |
|                  |             |     | [C]                     |  | ASSEMBLY NUMBER:      |  | TOP DOCUMENT NUMBER: |  | RELEASE DATE: 07-JUN-84 |      |             |     |
|                  |             |     | [D]                     |  | E-UA-M7462-0-0        |  | 8-DD-M7462-0-0       |  |                         |      |             |     |
|                  |             |     | [E]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [F]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [G]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [H]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [I]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [J]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [K]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [L]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [M]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [N]                     |  |                       |  |                      |  |                         |      |             |     |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."

AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A2 OF A2

| LINE ITEM |    | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                    | QTY PER VARIATION | REFERENCE DESIGNATOR   |
|-----------|----|--------------|-------------|---------|--------------------------------|-------------------|--|
|           |    |              |             |         | VARIATION REVISION LEVEL:      | 00<br>82          |  |
| 29        | 29 |              | 1912860-00  |         | LS259 LATCH 88IT               | 2                 | E35,E91  |
| 30        | 30 |              | 1921010-01  |         | 74F373 OCTAL TRANSPARENT LA    | 6                 | E85,E87-E89,E99,E132   |
| 31        | 31 |              | 1921307-01  |         | 74F04 HEX INVERTER             | 5                 | E94,E102,E118,E135,E151  |
| 32        | 32 |              | 1921313-01  |         | 74F64 AND OR INVERT GATE,4-    | 26                | E64,E65,E78,E79,E100,E101,<br>CONT E103-E105,E115-E117,E119-E121,<br>CONT E133,E134,E136-E138,E148-E150,<br>CONT E152-E154 |
| 33        | 33 |              | 1012784-00  |         | .047 MFD 50V +80-20% CER       | 82                | C1,C2,C10-C47,C70-C110,C800  |
| 34        | 34 |              | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS | 1                 |  |
| 35        | 35 |              | 9000024-01  |         | EYELET,ROLLED 0.1210DX0.192    | 12                |  |
| 36        | 36 |              | 1300271-00  |         | 220.0 .25 W 5.0 % CF           | 2                 |  |
| 37        | 37 |              | 1301775-00  |         | 820.0 .25 W 5.0 % CF           | 48                | R202,R203  |
| 38        | 38 |              | 1616653-00  |         | DELAY= 50NS,10TAPS WITH TTLBU  | 1                 | R800-R809,R818-R855  |
| 39        | 39 |              | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL   | 3                 | E51  |
| 40        | 40 |              | 1912746-01  |         | 74S37-18BUFFER-GATE            | 1                 | E43,E57,E71<br>E93   |

41 NOTE: SPARE I.C. LOCATIONS ARE E24-E28,E38,E52,E53-E56,E66,E80-E84.

|         |  |  |  |  |                            |                |  |      |      |                 |     |
|---------|--|--|--|--|----------------------------|----------------|--|------|------|-----------------|-----|
| DIGITAL |  |  |  |  | TITLE                      | SECTION A OF A |  | SIZE | CODE | DOCUMENT NUMBER | REV |
|         |  |  |  |  | CACHE ADDRESS MATRIX (CAM) |                |  | K    | PL   | M7462-0-D8P     | C   |

8

7

6

5

4

3

2

1

17462-0-294241 53 3073 3215

1

SIGNAL NAME PAGE NUMBER(S)

CAMI G1 TAG 24 H CAMJ.L,K,I  
CAMI G1 TAG 25 H CAMJ.L,K,I  
CAMI G1 TAG 26 H CAMJ.L,K,I  
CAMI G1 TAG 27 H CAMJ.L,K,I  
CAMI G1 TAG 28 H CAMJ.L,K,I  
CAMJ G8 AD PAR 2 EV H CAMJ  
CAMJ G8 AD PAR 2 OD H CAMJ.H  
CAMJ GRAB MODIFY H CAMJ.V  
CAMJ GRAB PAR 1 L CAMJ.H,U  
CAMJ GRAB PAR 2 H CAMJ

CAMJ GRAB PROTECT 00 H CAMJ.V  
CAMJ GRAB PROTECT 01 H CAMJ.V  
CAMJ GRAB PROTECT 02 H CAMJ.V  
CAMJ GRAB PROTECT 03 H CAMJ.V  
CAMJ GRAB VALID H CAMJ.X,U  
CAMK G8 MATCH H CAMJ.H,K,P  
CAMK G1 MATCH H CAMJ.H,K,P  
CAML G8 BIT 0 PAR EV H CAMH.L,P  
CAML G8 BIT 0 PAR OD H CAMH.L  
CAML G8 BIT 1 PAR EV H CAMH.L,P

CAML G8 BIT 1 PAR OD H CAMH.L  
CAML G8 BIT 2 PAR EV H CAMH.N,P  
CAML G8 BIT 2 PAR OD H CAMH.N  
CAML G1 BIT 0 PAR EV H CAMH.N,P  
CAML G1 BIT 0 PAR OD H CAMH.N  
CAML G1 BIT 1 PAR EV H CAMH.N,P  
CAML G1 BIT 1 PAR OD H CAMH.N  
CAML G1 BIT 2 PAR EV H CAMH.N,P  
CAML G1 BIT 2 PAR OD H CAMH.N  
CAMM CPT8 H CAMH,P

CAMM CPT8 L CAMM  
CAMM CPT1 A H CAMM.P,B,A  
CAMM CPT1 A L CAMM.A  
CAMM CPT1 B H CAMM.A,B,C  
CAMM CPT1 B L CAMM.A,C  
CAMM CPT2 H CAMM.A,B  
CAMM CPT2 L CAMM  
CAMM CPT3 A H CAMM.M  
CAMM CPT3 A L CAMM  
CAMM CPT3 B H CAMM.M

CAMM CPT3 B L CAMM  
CAMM SDMS CHAL H H CAMM  
CAMM +3V A H CAMM.U,X  
CAMM +3V H CAMM.H,J,S,T,U  
CAMM BLOCK WRITE L CAMM  
CAMM DISABLE G8 A0 H CAMM.P  
CAMM DISABLE G8 A1 H CAMM.J,P  
CAMM DISABLE G8 A2 H CAMJ.P  
CAMM DISABLE G8 B0 H CAMM.O  
CAMM DISABLE G8 B1 H CAMM.O

SIGNAL NAME PAGE NUMBER(S)

CAMP DISABLE G8 B2 H CAMP.O  
CAMP DISABLE G1 A0 H CAMS.P  
CAMP DISABLE G1 A1 H CAMS.T,P  
CAMP DISABLE G1 A2 H CAMT.P  
CAMP DISABLE G1 B0 H CAMP.O  
CAMP DISABLE G1 B1 H CAMP.O  
CAMP DISABLE G1 B2 H CAMP.O  
CAMP FORCE NOT EQ GR8 H CAMP.U,X  
CAMP FORCE NOT EQ GR1 H CAMP.U,K  
CAMP G8 WR A L CAMP.P,F,R

CAMP G8 WR L CAMP.F,E,R  
CAMP G8 WRITE EN H CAMH.P  
CAMP G1 WR A L CAMP.D,I,R  
CAMP G1 WR L CAMP.I,G,R  
CAMP G1 WRITE EH H CAMH.P  
CAMP T 50 WINVL L CAMP  
CAMP WRITE A H CAMP  
CAMP WRITE N CAMP  
CAMR VARI 16 BUFF L CAMH.S,U,R  
CAMR VARI 17 BUFF L CAMH.S,U,R

CAMR VARI 18 BUFF L CAMH.S,U,R  
CAMR VARI 19 BUFF L CAMH.S,U,R  
CAMR VARI 20 BUFF L CAMH.S,U,R  
CAMR VARI 21 BUFF L CAMH.S,U,R  
CAMR VARI 22 BUFF L CAMH.S,U,R  
CAMR VARI 23 BUFF L CAMH.S,U,R  
CAMR VARI 24 BUFF L CAMH.S,U,R  
CAMR VARI 25 BUFF L CAMH.S,U,R  
CAMR VARI 26 BUFF L CAMH.S,U,R  
CAMR VARI 27 BUFF L CAMH.S,U,R

CAMR VARI 28 BUFF L CAMH.S,U,R  
CAMR VARI 29 BUFF L CAMH.S,U,R  
CAMR VARI 30 BUFF L CAMH.S,U,R  
CAMS G1 AD PAR 0 EV H CAMS  
CAMS G1 AD PAR 0 OD H CAMS.N  
CAMS G1 AD PAR 1 EV H CAMS  
CAMS G1 AD PAR 1 OD H CAMS.H  
CAMS GRP1 ADPS 16 L CAMS.X,U  
CAMS GRP1 ADPS 17 L CAMS.X,U  
CAMS GRP1 ADPS 18 L CAMS.X,U

CAMS GRP1 ADPS 19 L CAMS.X,U  
CAMS GRP1 ADPS 20 L CAMS.X,U  
CAMS GRP1 ADPS 21 L CAMS.X,U  
CAMS GRP1 ADPS 22 L CAMS.X,U  
CAMS GRP1 ADPS 23 L CAMS.X,U  
CAMS GRP1 ADPS 24 L CAMS.X,U  
CAMS GRP1 ADPS 25 L CAMS.X,U  
CAMS GRP1 ADPS 26 L CAMS.X,U  
CAMS GRP1 ADPS 27 L CAMS.X,U  
CAMS GRP1 ADPS 28 L CAMS.X,U

SIGNAL NAME PAGE NUMBER(S)

CAMS GRP1 ADPS 29 L CAMS.X,U  
CAMS GRP1 ADPS 30 L CAMS.X,U  
CAMS GRP1 PAR 8 L CAMS.X,U  
CANT G1 AD PAR 2 EV H CANT  
CANT G1 AD PAR 2 OD H CANT.N  
CANT GRAB VALID H CAMK  
CANT GRP1 MODIFY H CANT.V  
CANT GRP1 PAR 1 L CANT.S,X,U  
CANT GRP1 PAR 2 H CANT  
CANT GRP1 PROTECT 00 H CANT.V

CANT GRP1 PROTECT 01 H CANT.V  
CANT GRP1 PROTECT 02 H CANT.V  
CANT GRP1 PROTECT 03 H CANT.V  
CANT GRP1 VALID H CANT.U  
CAMU T8 GRP 8 MATCH H CAMV.X,U  
CAMU T8 GRP 1 MATCH H CAMK,U  
CAMU T8 PAR 0 H CAMJ.N  
CAMU T8 PAR 8 L CAMH.S,U,X  
CAMU T8 PAR 1 H CAMJ.N  
CAMU T8 PAR 1 L CAMJ.T,U,X

CAMV MODIFY L CAMV  
CAMV PROTECT 0 L CAMV  
CAMV PROTECT 1 L CAMV  
CAMV PROTECT 2 L CAMV  
CAMV PROTECT 3 L CAMV  
CAMV REC ID 26 H CAMJ.T,V  
CAMV REC ID 27 H CAMJ.T,V  
CAMV REC ID 28 H CAMJ.T,V  
CAMV REC ID 29 H CAMJ.T,V  
CAMV REC ID 30 H CAMJ.T,V

CAMV REC ID 31 H CAMJ.T,V  
CAMV REC PAR 2 H CAMJ.T,V,M  
CDBM SDMS CIRC 1A H CAMH  
CDBM SDMS CLOCK L CAMH  
CDBM SDMS LOAD H CAMH  
CLKB LECL CPT8A2 H CAMM  
CLKB LECL CPT8A2 I CAMM  
CLKC LECL CPT1A2 H CAMM  
CLKC LECL CPT1A2 L CAMM  
CLKD LECL CPT2A2 H CAMM

CLKD LECL CPT2A2 L CAMM  
CLKE LECL CPT3A2 H CAMM  
CLKE LECL CPT3A2 L CAMM  
DDPH VARI 09 L CAMH.J,S,T  
DDPH VARI 10 L CAMH.J,S,T  
DDPH VARI 11 L CAMH.J,S,T  
DDPH VARI 12 L CAMH.J,S,T  
DDPH VARI 13 L CAMH.J,S,T  
DDPH VARI 14 L CAMH.J,S,T  
DDPH VARI 15 L CAMH.J,S,T

## NOTES:

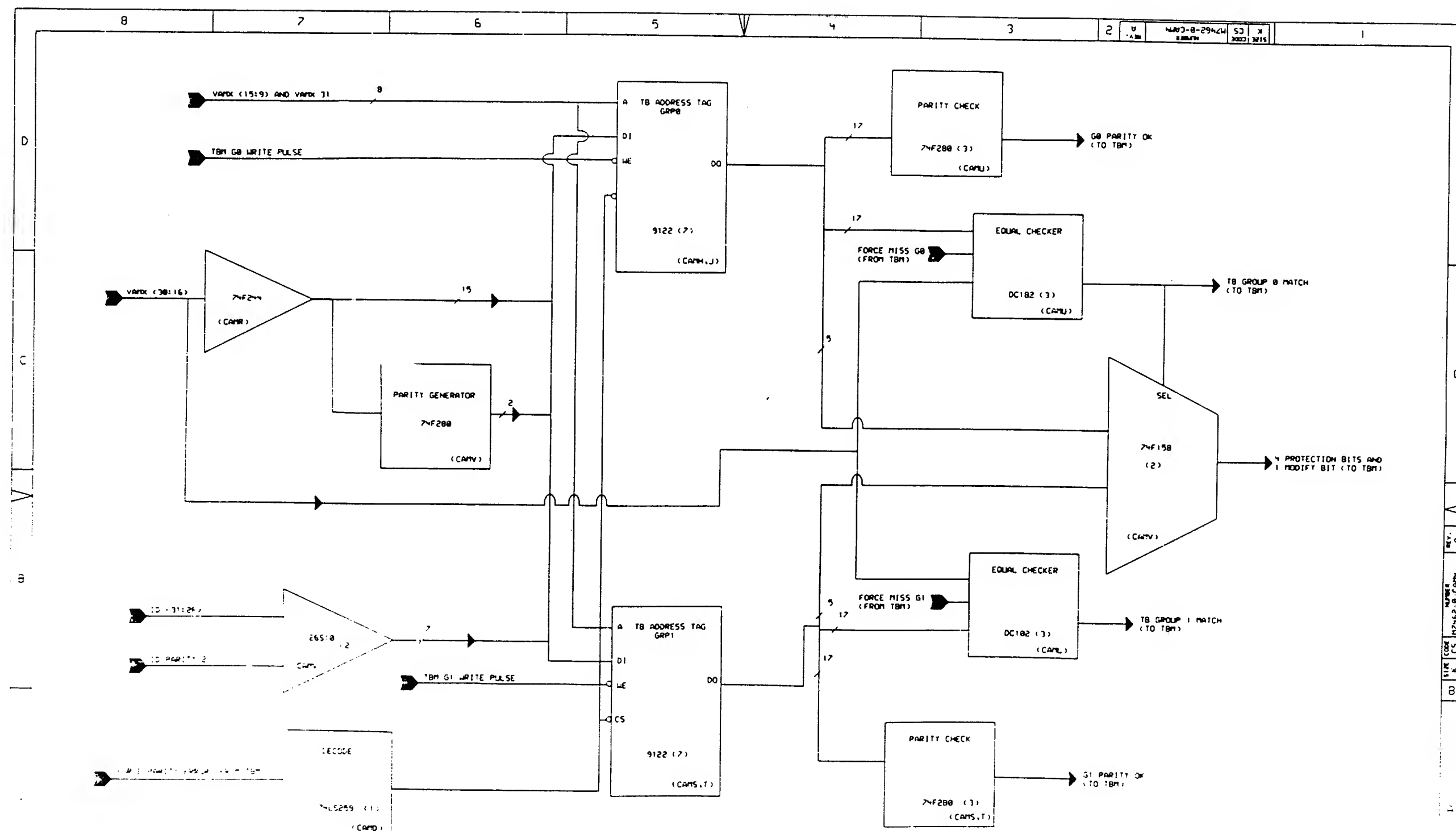
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART AND THE BASIS FOR THE MANUFACTURE OF ANY ITEM WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1981. DIGITAL EQUIPMENT CORPORATION.

|  |           |           |           |                             |
|--|-----------|-----------|-----------|-----------------------------|
| digital  | DATE      | ENG.      | DATE      | TITLE:                      |
|  | 10-NOV-81 | 10-NOV-81 | 10-NOV-81 | CACHE ADDRESS MATRIX (CAM1) |
| DESCRIPTION: CAM1, RAW 10-NOV-81 13:31 NEXT HIGHER ASSEMBLY: |           |           |           | SIZE CODE                   |
| FIRST USED ON OPTION/MODEL: 11/285                           |           |           |           | K CS                        |
|  |           |           |           | NUMBER                      |
|  |           |           |           | M7462-0-CAM1                |
|  |           |           |           | REV.                        |
|  |           |           |           | A                           |

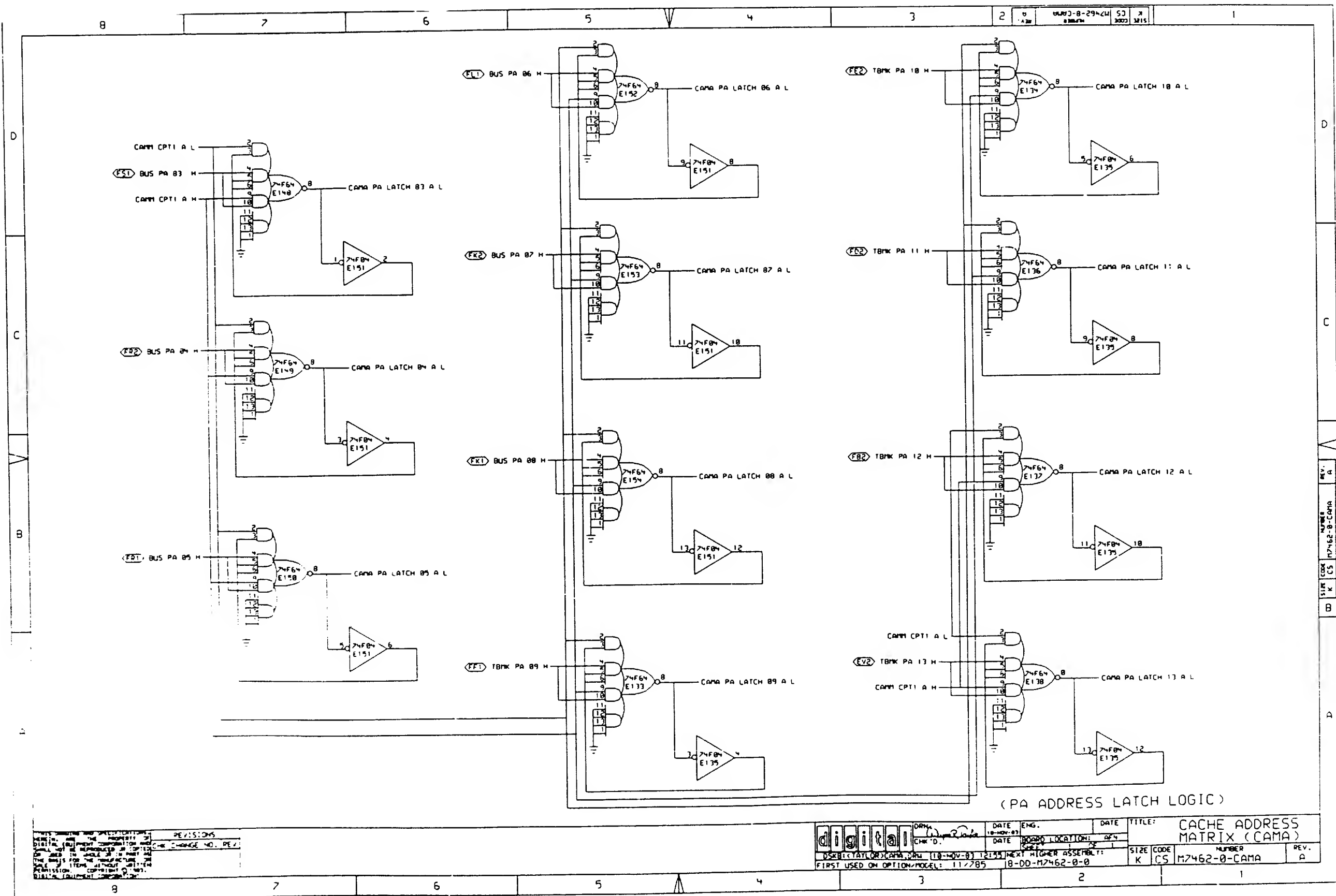






REVISIONS  
 1. 10-NOV-83  
 2. 10-NOV-83  
 3. 10-NOV-83  
 4. 10-NOV-83  
 5. 10-NOV-83  
 6. 10-NOV-83  
 7. 10-NOV-83  
 8. 10-NOV-83  
 9. 10-NOV-83  
 10. 10-NOV-83  
 11. 10-NOV-83  
 12. 10-NOV-83  
 13. 10-NOV-83  
 14. 10-NOV-83  
 15. 10-NOV-83  
 16. 10-NOV-83  
 17. 10-NOV-83  
 18. 10-NOV-83  
 19. 10-NOV-83  
 20. 10-NOV-83  
 21. 10-NOV-83  
 22. 10-NOV-83  
 23. 10-NOV-83  
 24. 10-NOV-83  
 25. 10-NOV-83  
 26. 10-NOV-83  
 27. 10-NOV-83  
 28. 10-NOV-83  
 29. 10-NOV-83  
 30. 10-NOV-83  
 31. 10-NOV-83  
 32. 10-NOV-83  
 33. 10-NOV-83  
 34. 10-NOV-83  
 35. 10-NOV-83  
 36. 10-NOV-83  
 37. 10-NOV-83  
 38. 10-NOV-83  
 39. 10-NOV-83  
 40. 10-NOV-83  
 41. 10-NOV-83  
 42. 10-NOV-83  
 43. 10-NOV-83  
 44. 10-NOV-83  
 45. 10-NOV-83  
 46. 10-NOV-83  
 47. 10-NOV-83  
 48. 10-NOV-83  
 49. 10-NOV-83  
 50. 10-NOV-83  
 51. 10-NOV-83  
 52. 10-NOV-83  
 53. 10-NOV-83  
 54. 10-NOV-83  
 55. 10-NOV-83  
 56. 10-NOV-83  
 57. 10-NOV-83  
 58. 10-NOV-83  
 59. 10-NOV-83  
 60. 10-NOV-83  
 61. 10-NOV-83  
 62. 10-NOV-83  
 63. 10-NOV-83  
 64. 10-NOV-83  
 65. 10-NOV-83  
 66. 10-NOV-83  
 67. 10-NOV-83  
 68. 10-NOV-83  
 69. 10-NOV-83  
 70. 10-NOV-83  
 71. 10-NOV-83  
 72. 10-NOV-83  
 73. 10-NOV-83  
 74. 10-NOV-83  
 75. 10-NOV-83  
 76. 10-NOV-83  
 77. 10-NOV-83  
 78. 10-NOV-83  
 79. 10-NOV-83  
 80. 10-NOV-83  
 81. 10-NOV-83  
 82. 10-NOV-83  
 83. 10-NOV-83  
 84. 10-NOV-83  
 85. 10-NOV-83  
 86. 10-NOV-83  
 87. 10-NOV-83  
 88. 10-NOV-83  
 89. 10-NOV-83  
 90. 10-NOV-83  
 91. 10-NOV-83  
 92. 10-NOV-83  
 93. 10-NOV-83  
 94. 10-NOV-83  
 95. 10-NOV-83  
 96. 10-NOV-83  
 97. 10-NOV-83  
 98. 10-NOV-83  
 99. 10-NOV-83  
 100. 10-NOV-83

|                                    |      |           |      |           |      |           |                 |                             |              |
|------------------------------------|------|-----------|------|-----------|------|-----------|-----------------|-----------------------------|--------------|
| digital                            | DATE | 10-NOV-83 | DATE | 10-NOV-83 | DATE | 10-NOV-83 | TITLE           | CACHE ADDRESS MATRIX (CAM4) |              |
|                                    | DATE | 10-NOV-83 | DATE | 10-NOV-83 | DATE | 10-NOV-83 | SIZE            | CODE                        |              |
| FIRST USED ON OPTION/MODEL: 11-785 |      |           |      |           |      |           | 18-00-M7462-0-0 | NUMBER                      | M7462-0-CAM4 |
|                                    |      |           |      |           |      |           | REV.            | A                           |              |



(PA ADDRESS LATCH LOGIC)

REVISIONS  
 1. 18-00-01  
 2. 18-00-02  
 3. 18-00-03  
 4. 18-00-04  
 5. 18-00-05  
 6. 18-00-06  
 7. 18-00-07  
 8. 18-00-08  
 9. 18-00-09  
 10. 18-00-10  
 11. 18-00-11  
 12. 18-00-12  
 13. 18-00-13  
 14. 18-00-14  
 15. 18-00-15  
 16. 18-00-16  
 17. 18-00-17  
 18. 18-00-18  
 19. 18-00-19  
 20. 18-00-20

**digital** ORN  
 DATE 18-00-01  
 DATE 18-00-02  
 DATE 18-00-03  
 DATE 18-00-04  
 DATE 18-00-05  
 DATE 18-00-06  
 DATE 18-00-07  
 DATE 18-00-08  
 DATE 18-00-09  
 DATE 18-00-10  
 DATE 18-00-11  
 DATE 18-00-12  
 DATE 18-00-13  
 DATE 18-00-14  
 DATE 18-00-15  
 DATE 18-00-16  
 DATE 18-00-17  
 DATE 18-00-18  
 DATE 18-00-19  
 DATE 18-00-20

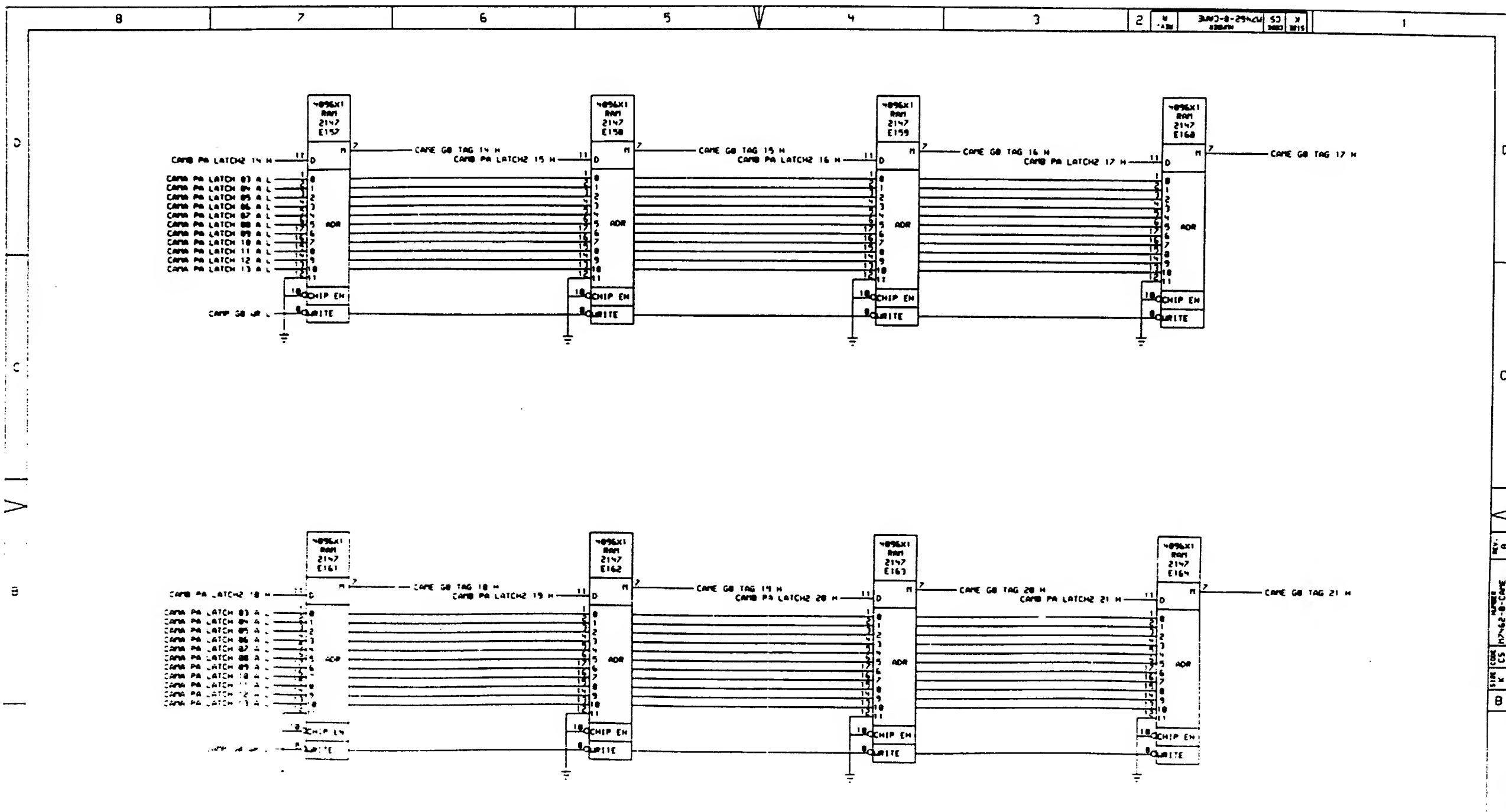
**CACHE ADDRESS MATRIX (CAMA)**  
 SIZE CODE NUMBER  
 K CS M7462-0-CAMA  
 REV. A



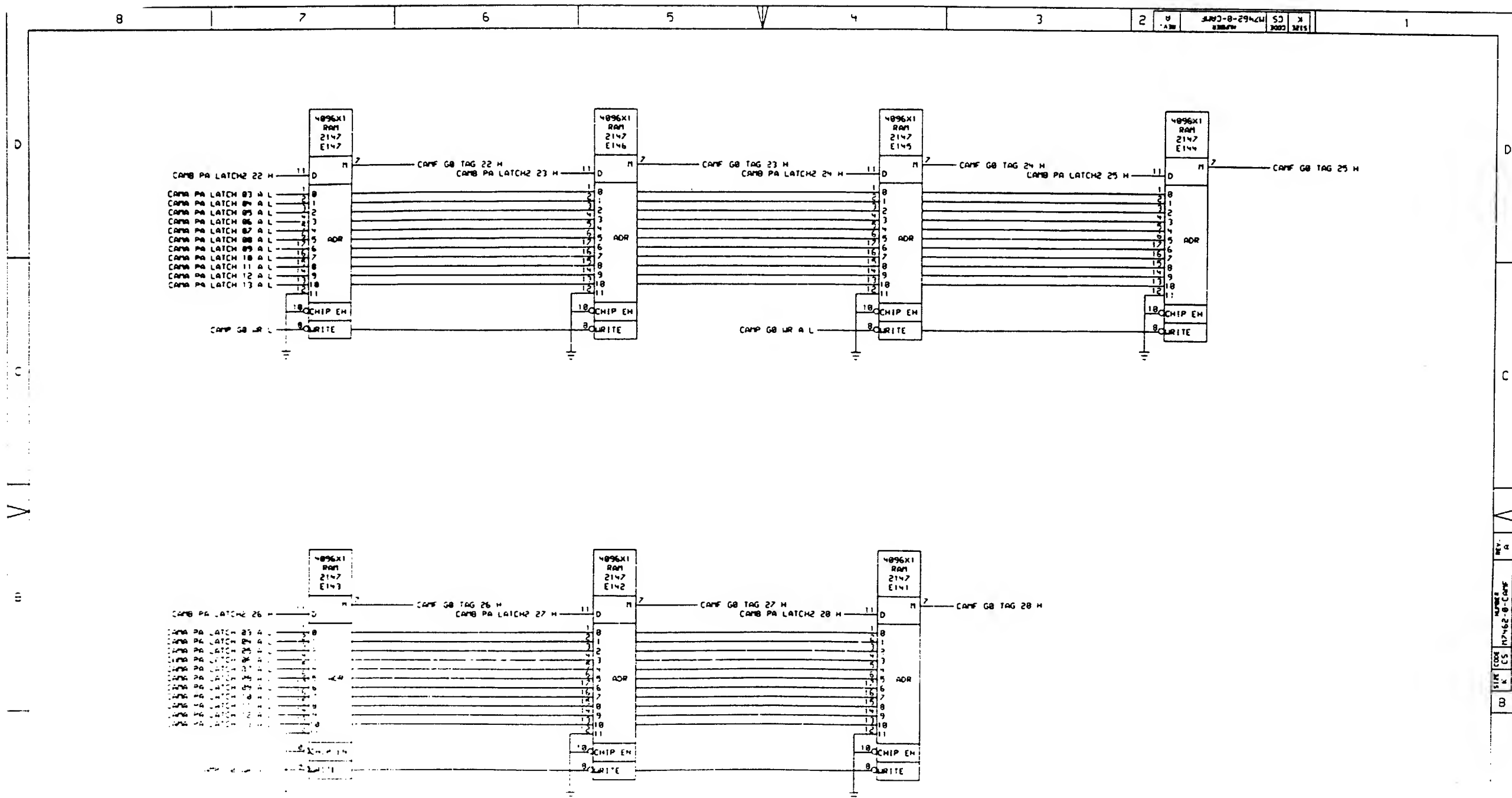








CACHE ADDRESS TAG GROUP 0 (0-21)

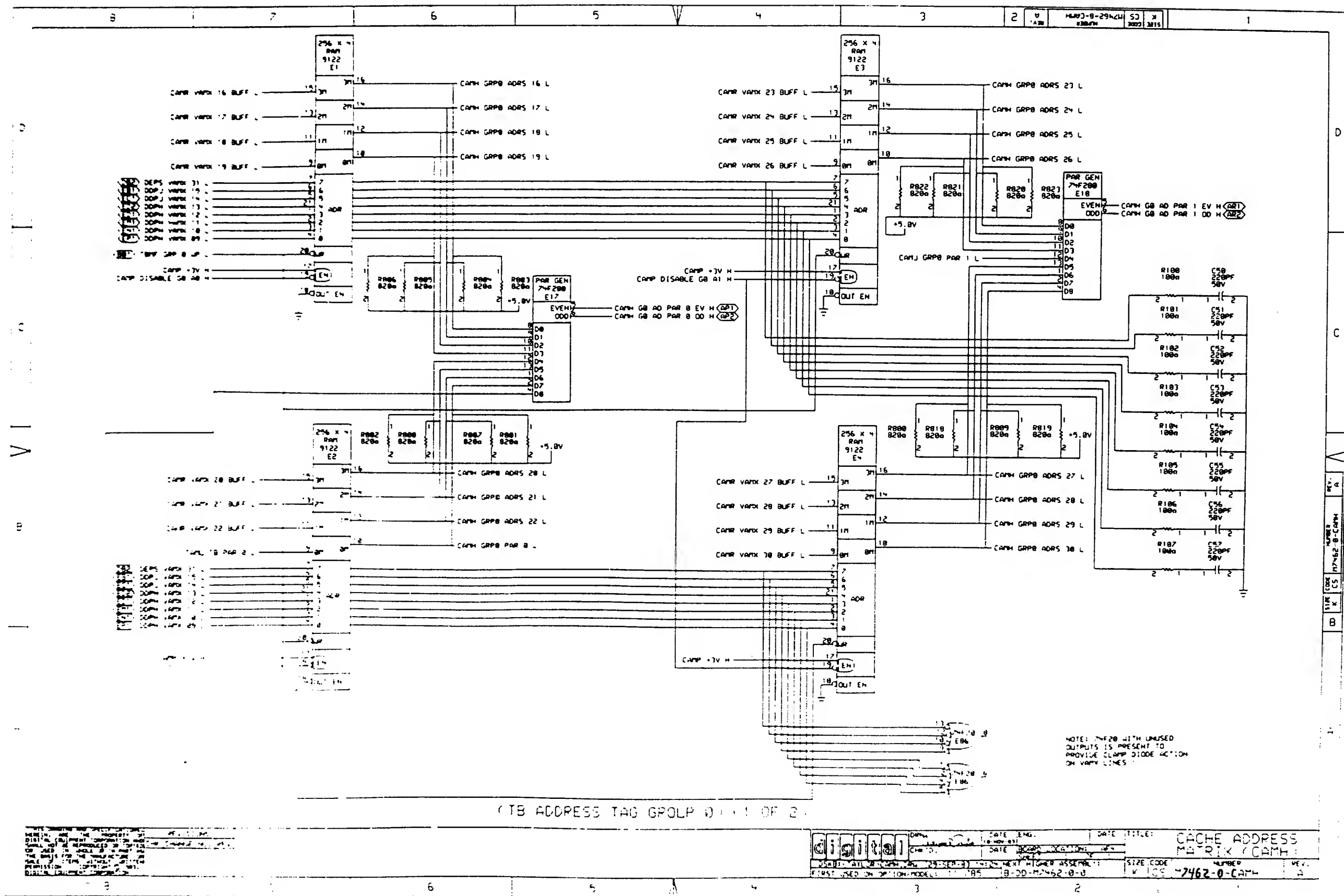


CACHE ADDRESS TAG GROUP 0 (28:23)

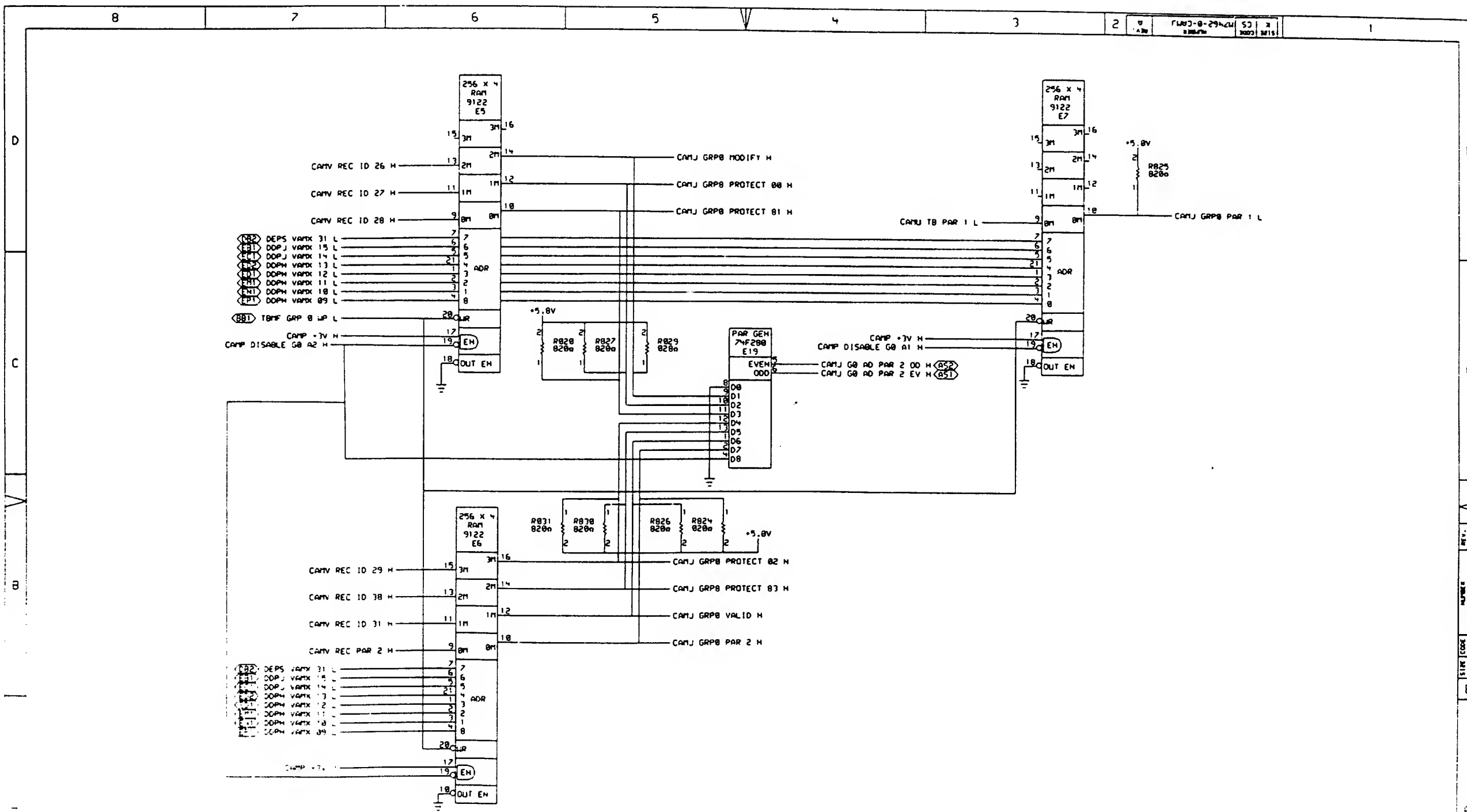
DATE: 10-01-81  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 APPROVED BY: [Signature]  
 TITLE: CACHE ADDRESS TAG GROUP 0 (28:23)

|   |                |                 |                      |
|---|----------------|-----------------|----------------------|
| digital                                     | DATE: 10-01-81 | DATE: 10-01-81  | DATE: 10-01-81       |
|   | DATE: 10-01-81 | DATE: 10-01-81  | DATE: 10-01-81       |
| FIRST USED IN OPTION MODEL: 18-00-M7462-0-0 |                | SIZE/COO: 1X1CS | NUMBER: M7462-0-CAMP |









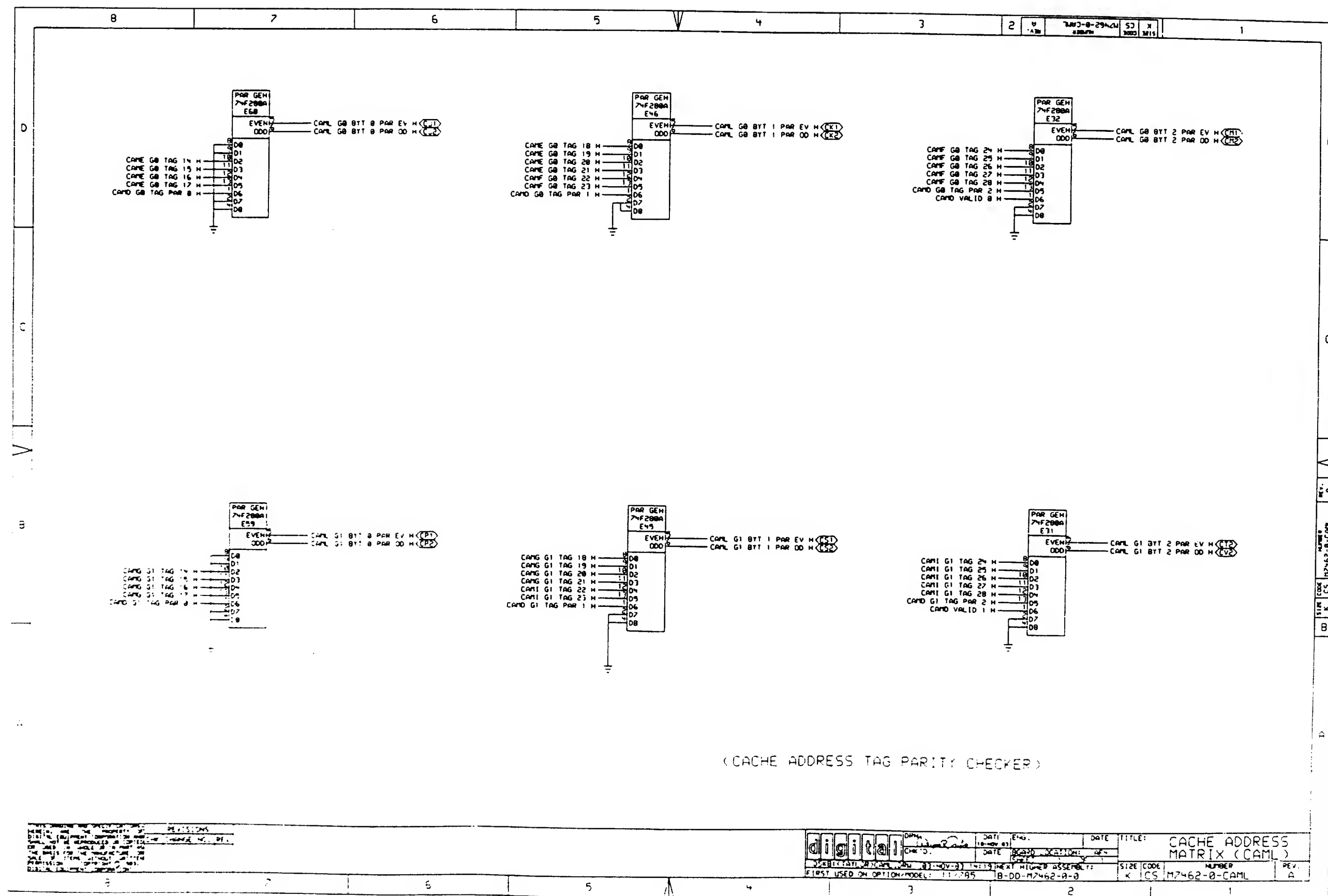
(TB ADDRESS TAG GROUP 0) ( 2 OF 2 )

REVISIONS  
1.0  
2.0  
3.0  
4.0  
5.0  
6.0  
7.0  
8.0  
9.0  
10.0  
11.0  
12.0  
13.0  
14.0  
15.0  
16.0  
17.0  
18.0  
19.0  
20.0  
21.0  
22.0  
23.0  
24.0  
25.0  
26.0  
27.0  
28.0  
29.0  
30.0  
31.0  
32.0  
33.0  
34.0  
35.0  
36.0  
37.0  
38.0  
39.0  
40.0  
41.0  
42.0  
43.0  
44.0  
45.0  
46.0  
47.0  
48.0  
49.0  
50.0  
51.0  
52.0  
53.0  
54.0  
55.0  
56.0  
57.0  
58.0  
59.0  
60.0  
61.0  
62.0  
63.0  
64.0  
65.0  
66.0  
67.0  
68.0  
69.0  
70.0  
71.0  
72.0  
73.0  
74.0  
75.0  
76.0  
77.0  
78.0  
79.0  
80.0  
81.0  
82.0  
83.0  
84.0  
85.0  
86.0  
87.0  
88.0  
89.0  
90.0  
91.0  
92.0  
93.0  
94.0  
95.0  
96.0  
97.0  
98.0  
99.0  
100.0

|                                    |           |       |          |                             |
|------------------------------------|-----------|-------|----------|-----------------------------|
| digital                            | DATE      | ENG.  | DATE     | TITLE                       |
|                                    | 10-NOV-81 |       |          | CACHE ADDRESS MATRIX (CAMJ) |
| CHK'D                              | DATE      | BOARD | LOCATION | REV.                        |
|                                    |           |       |          | A                           |
| FIRST USED ON OPTION/MODEL: 11/785 |           |       |          | 18-DD-M7462-0-0             |
| SIZE CODE                          |           |       |          | NUMBER                      |
| K CS                               |           |       |          | M7462-0-CAMJ                |
|                                    |           |       |          | R.V.                        |
|                                    |           |       |          | A                           |

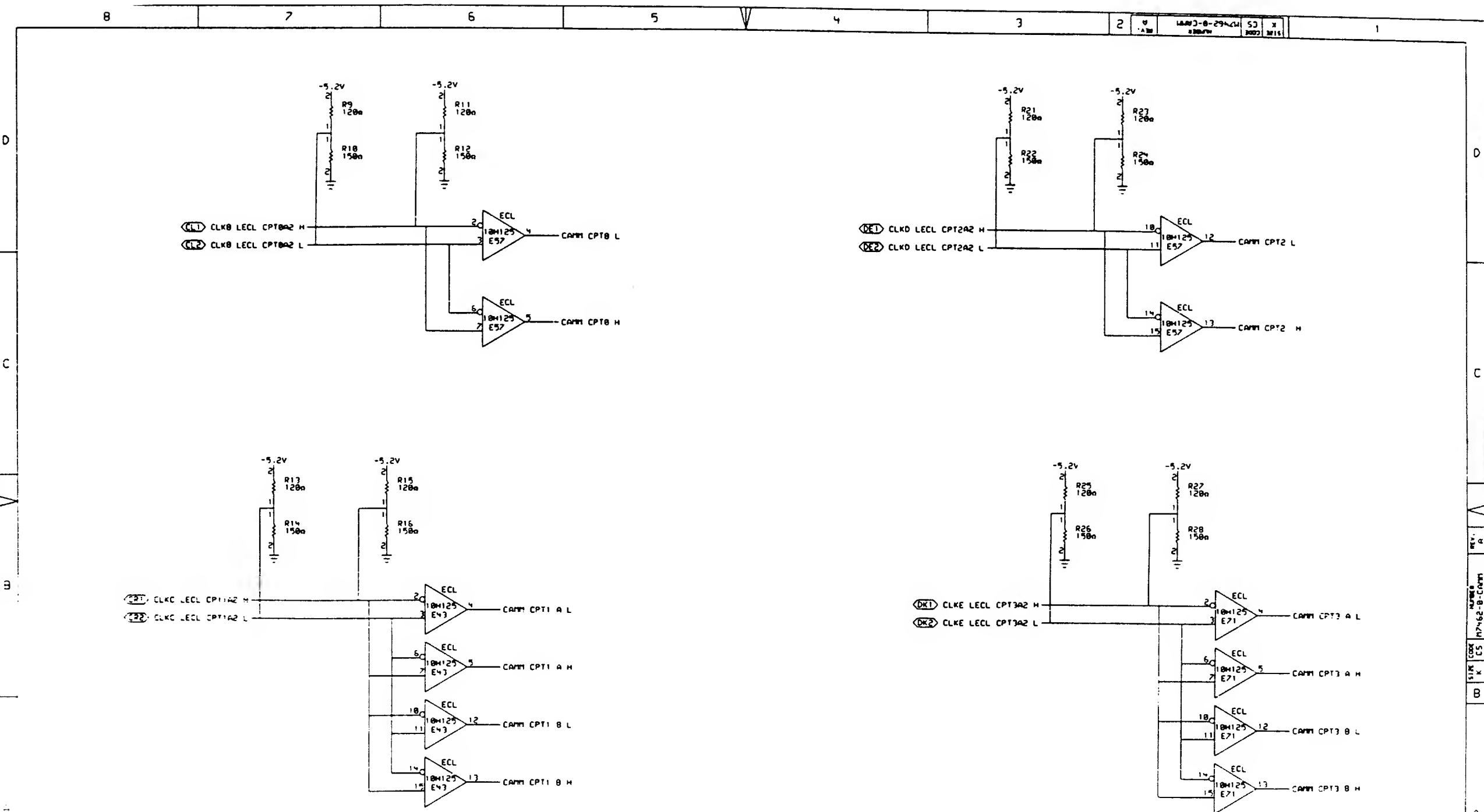






REVISIONS  
 DATE: 10-11-85  
 BY: [Signature]  
 DESCRIPTION: [Text]  
 APPROVED: [Signature]  
 DATE: 10-11-85

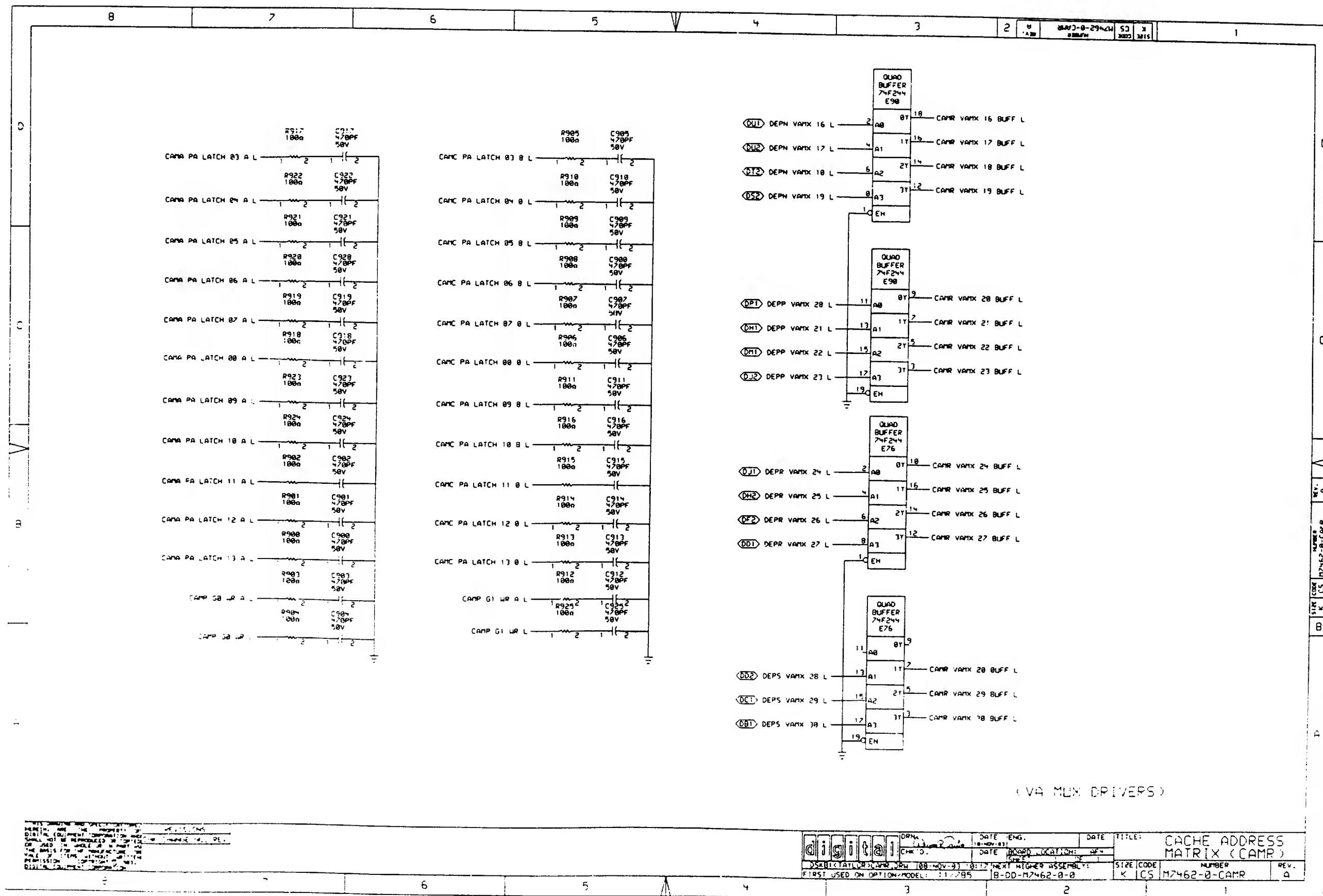
|                                     |                |                  |                                    |
|-------------------------------------|----------------|------------------|------------------------------------|
| digital                             | DATE: 10-11-85 | DATE: 10-11-85   | TITLE: CACHE ADDRESS MATRIX (CAML) |
| FIRST USED ON OPTION/MODEL: 11-1-85 | B-DD-M7462-A-0 | SIZE CODE: X 1CS | NUMBER: M7462-0-CAML               |



(CLOCK RECEIVERS)







THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM DIGITAL EQUIPMENT CORPORATION.

|                                    |  |                     |                |                |   |                      |
|------------------------------------|--|---------------------|----------------|----------------|---|----------------------|
| <b>digital</b>                     |  | DATE ENG. 10-NOV-83 | DATE 10-NOV-83 | DATE 10-NOV-83 | TITLE: <b>CACHE ADDRESS MATRIX (CAMR)</b> |                      |
| DESIGNATION: M7462-0-CAMR          |  | DATE 10-NOV-83      | DATE 10-NOV-83 | DATE 10-NOV-83 | SIZE CODE: K CS                           | NUMBER: M7462-0-CAMR |
| FIRST USED ON OPTION MODEL: 11-285 |  | DATE 10-NOV-83      | DATE 10-NOV-83 | DATE 10-NOV-83 | REV. A                                    |                      |

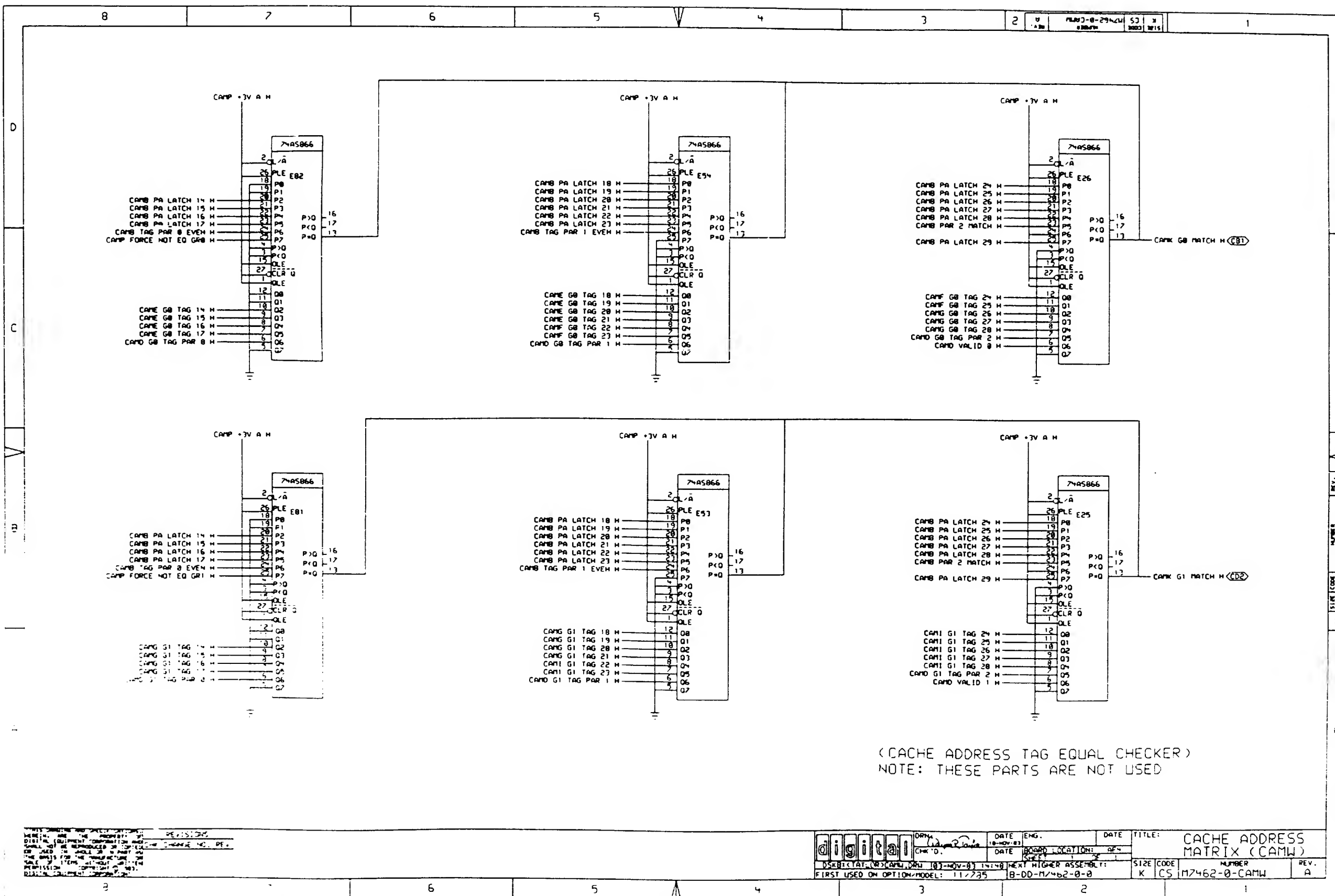




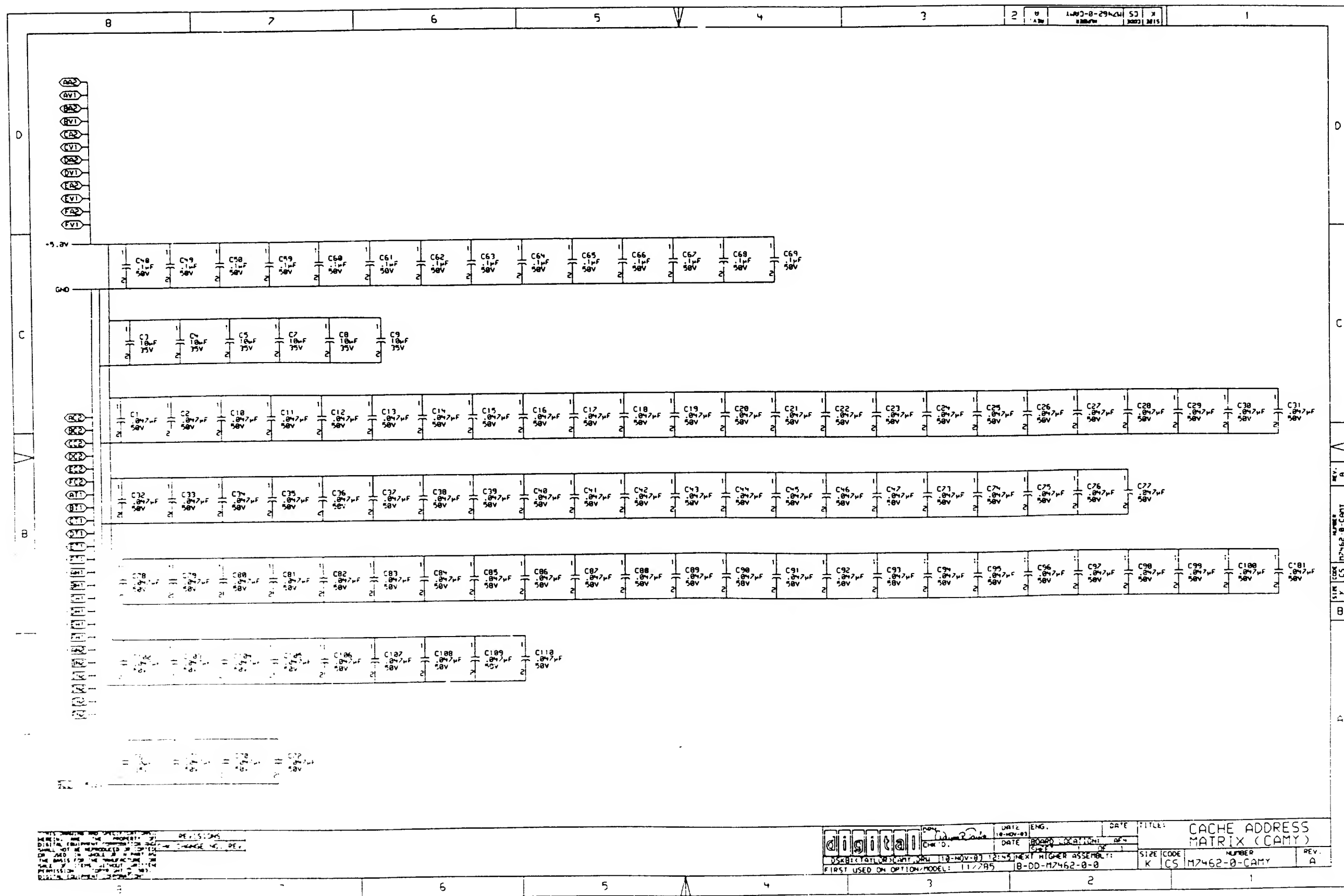












| SIGNAL NAME             | PAGE NUMBER(S) | SIGNAL NAME           | PAGE NUMBER(S) | SIGNAL NAME           | PAGE NUMBER(S) |
|-------------------------|----------------|-----------------------|----------------|-----------------------|----------------|
| BUS ID D26 L            | CAMP           | CAMP PA LATCH 17 H    | CAMP.B.H.K     | CAMP VALID 1 H        | CAMP.L.K.D     |
| BUS ID D27 L            | CAMP           | CAMP PA LATCH 18 H    | CAMP.H.K.B     | CAMP G8 TAG 14 H      | CAMP.H.K.E     |
| BUS ID D28 L            | CAMP           | CAMP PA LATCH 19 H    | CAMP.H.K.B     | CAMP G8 TAG 15 H      | CAMP.H.K.E     |
| BUS ID D29 L            | CAMP           | CAMP PA LATCH 20 H    | CAMP.H.K.B     | CAMP G8 TAG 16 H      | CAMP.H.K.E     |
| BUS ID D30 L            | CAMP           | CAMP PA LATCH 21 H    | CAMP.H.K.B     | CAMP G8 TAG 17 H      | CAMP.H.K.E     |
| BUS ID D31 L            | CAMP           | CAMP PA LATCH 22 H    | CAMP.H.K.B     | CAMP G8 TAG 18 H      | CAMP.H.K.E     |
| BUS ID P11 J L          | CAMP           | CAMP PA LATCH 23 H    | CAMP.H.K.B     | CAMP G8 TAG 19 H      | CAMP.H.K.E     |
| BUS PA 03 H             | CAMP.A         | CAMP PA LATCH 24 H    | CAMP.H.K.B     | CAMP G8 TAG 20 H      | CAMP.H.K.E     |
| BUS PA 04 H             | CAMP.A         | CAMP PA LATCH 25 H    | CAMP.H.K.B     | CAMP G8 TAG 21 H      | CAMP.H.K.E     |
| BUS PA 05 H             | CAMP.A         | CAMP PA LATCH 26 H    | CAMP.H.K.B     | CAMP G8 TAG 22 H      | CAMP.H.K.F     |
| BUS PA 06 H             | CAMP.A         | CAMP PA LATCH 27 H    | CAMP.H.K.B     | CAMP G8 TAG 23 H      | CAMP.H.K.F     |
| BUS PA 07 H             | CAMP.A         | CAMP PA LATCH 28 H    | CAMP.H.K.B     | CAMP G8 TAG 24 H      | CAMP.H.K.F     |
| BUS PA 08 H             | CAMP.A         | CAMP PA LATCH 29 H    | CAMP.H.K.B     | CAMP G8 TAG 25 H      | CAMP.H.K.F     |
| BUS PA 14 H             | CAMP           | CAMP PA LATCH2 14 H   | CAMP.G.E       | CAMP G8 TAG 26 H      | CAMP.H.K.F     |
| BUS PA 15 H             | CAMP           | CAMP PA LATCH2 15 H   | CAMP.G.E       | CAMP G8 TAG 27 H      | CAMP.H.K.F     |
| BUS PA 16 H             | CAMP           | CAMP PA LATCH2 16 H   | CAMP.G.E       | CAMP G8 TAG 28 H      | CAMP.H.K.F     |
| BUS PA 17 H             | CAMP           | CAMP PA LATCH2 17 H   | CAMP.G.E       | CAMP G8 TAG 29 H      | CAMP           |
| BUS PA 18 H             | CAMP           | CAMP PA LATCH2 18 H   | CAMP.G.E       | CAMP G8 TAG 30 H      | CAMP           |
| BUS PA 19 H             | CAMP           | CAMP PA LATCH2 19 H   | CAMP.G.E       | CAMP G1 TAG 14 H      | CAMP.H.K.G     |
| BUS PA 20 H             | CAMP           | CAMP PA LATCH2 20 H   | CAMP.G.E       | CAMP G1 TAG 15 H      | CAMP.H.K.G     |
| BUS PA 21 H             | CAMP           | CAMP PA LATCH2 21 H   | CAMP.G.E       | CAMP G1 TAG 16 H      | CAMP.H.K.G     |
| BUS PA 22 H             | CAMP           | CAMP PA LATCH2 22 H   | CAMP.I.F       | CAMP G1 TAG 17 H      | CAMP.H.K.G     |
| BUS PA 23 H             | CAMP           | CAMP PA LATCH2 23 H   | CAMP.I.F       | CAMP G1 TAG 18 H      | CAMP.H.K.G     |
| BUS PA 24 H             | CAMP           | CAMP PA LATCH2 24 H   | CAMP.I.F       | CAMP G1 TAG 19 H      | CAMP.H.K.G     |
| BUS PA 25 H             | CAMP           | CAMP PA LATCH2 25 H   | CAMP.I.F       | CAMP G1 TAG 20 H      | CAMP.H.K.G     |
| BUS PA 26 H             | CAMP           | CAMP PA LATCH2 26 H   | CAMP.I.F       | CAMP G1 TAG 21 H      | CAMP.H.K.G     |
| BUS PA 27 H             | CAMP           | CAMP PA LATCH2 27 H   | CAMP.I.F       | CAMP G8 AD PAR 8 EV H | CAMP           |
| BUS PA 28 H             | CAMP           | CAMP PA LATCH2 28 H   | CAMP.I.F       | CAMP G8 AD PAR 8 OD H | CAMP.H         |
| BUS PA 29 H             | CAMP           | CAMP PAR 2 MATCH H    | CAMP.H.K.B     | CAMP G8 AD PAR 8 EV H | CAMP           |
| CAMP G1 TAG 23 H        | CAMP           | CAMP TAG PAR 8 EVEN H | CAMP.H.K.B     | CAMP G8 AD PAR 1 OD H | CAMP.H         |
| CAMP PA LATCH 03 A L    | CAMP.D.F.A.E.R | CAMP TAG PAR 1 EVEN H | CAMP.H.K.B     | CAMP GRAB ADAS 16 L   | CAMP.H.K.U     |
| CAMP PA LATCH 04 A L    | CAMP.D.F.A.E.R | CAMP TAG PAR 2 EVEN H | CAMP.H         | CAMP GRAB ADAS 17 L   | CAMP.H.K.U     |
| CAMP PA LATCH 05 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 03 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 18 L   | CAMP.H.K.U     |
| CAMP PA LATCH 06 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 04 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 19 L   | CAMP.H.K.U     |
| CAMP PA LATCH 07 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 05 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 20 L   | CAMP.H.K.U     |
| CAMP PA LATCH 08 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 06 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 21 L   | CAMP.H.K.U     |
| CAMP PA LATCH 09 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 07 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 22 L   | CAMP.H.K.U     |
| CAMP PA LATCH 10 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 08 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 23 L   | CAMP.H.K.U     |
| CAMP PA LATCH 11 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 09 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 24 L   | CAMP.H.K.U     |
| CAMP PA LATCH 12 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 10 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 25 L   | CAMP.H.K.U     |
| CAMP PA LATCH 13 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 11 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 26 L   | CAMP.H.K.U     |
| CAMP PA LATCH 14 A L    | CAMP.D.F.A.E.R | CAMP PA LATCH 12 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 27 L   | CAMP.H.K.U     |
| CAMP LATCH PAR 0 EV H   | CAMP.D         | CAMP PA LATCH 13 B L  | CAMP.D.I.C.G.R | CAMP GRAB ADAS 28 L   | CAMP.H.K.U     |
| CAMP LATCH PAR 1 EV H   | CAMP.D         | CAMP G8 TAG PAR 0 H   | CAMP.H.K.D     | CAMP GRAB ADAS 29 L   | CAMP.H.K.U     |
| CAMP LATCH PAR 2 EV H   | CAMP.D         | CAMP G8 TAG PAR 1 H   | CAMP.H.K.D     | CAMP GRAB ADAS 30 L   | CAMP.H.K.U     |
| CAMP LATCH VALID BIT H  | CAMP.D         | CAMP G8 TAG PAR 2 H   | CAMP.H.K.D     | CAMP GRAB PAR 0 L     | CAMP           |
| CAMP LATCH2 VALID BIT H | CAMP.D         | CAMP G1 TAG PAR 0 H   | CAMP.H.K.D     | CAMP GRAB PAR 1 L     | CAMP           |
| CAMP PA LATCH 15 H      | CAMP.B.H.K     | CAMP G1 TAG PAR 1 H   | CAMP.H.K.D     | CAMP G1 TAG 22 H      | CAMP.H.K.I     |
| CAMP PA LATCH 16 H      | CAMP.B.H.K     | CAMP G1 TAG PAR 2 H   | CAMP.H.K.D     | CAMP G1 TAG 23 H      | CAMP.H.K.I     |
|                         |                | CAMP VALID 0 H        | CAMP.H.K.D     |                       |                |

NOTES:  
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

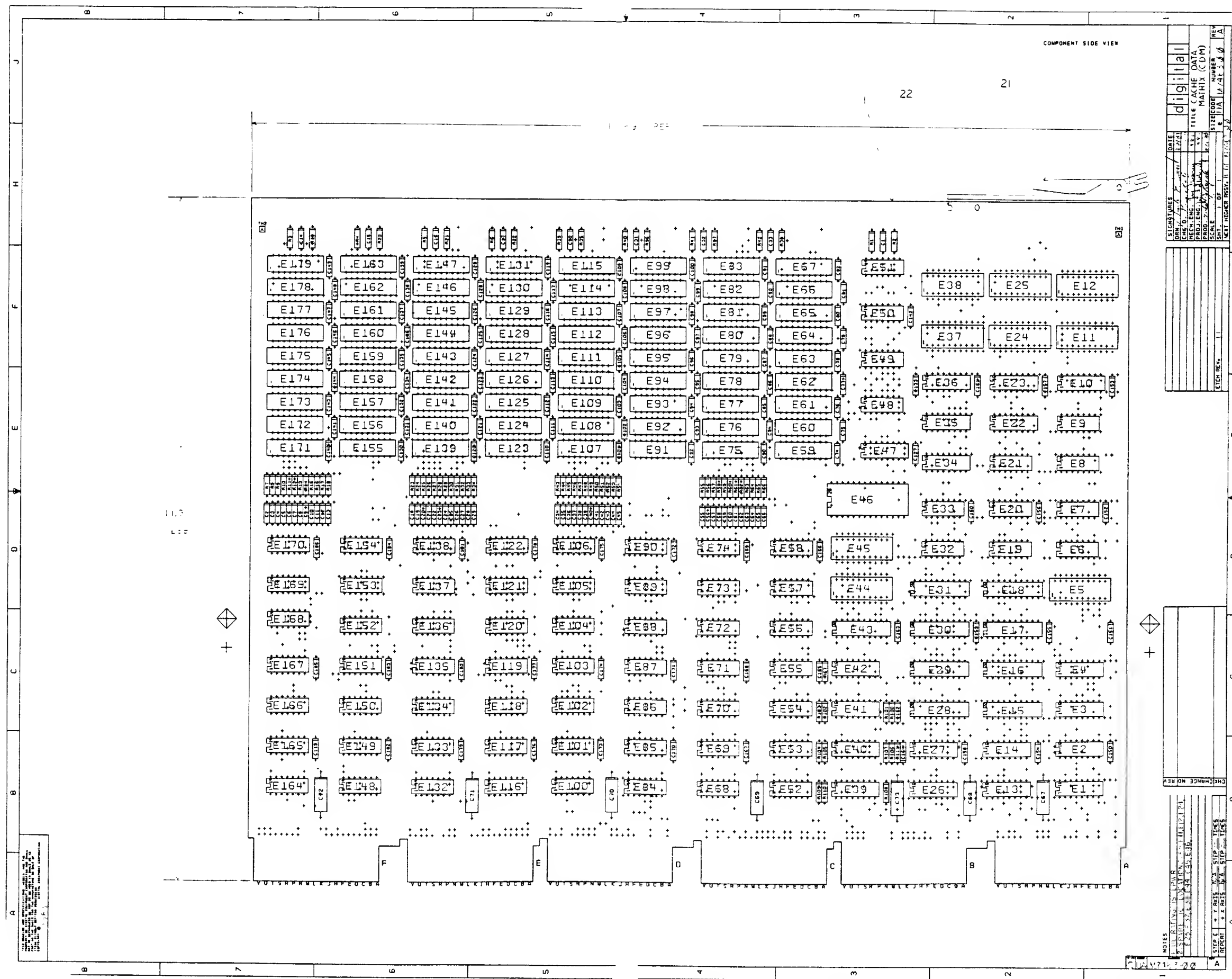
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM DIGITAL EQUIPMENT CORPORATION.

|                             |           |           |           |               |
|-----------------------------|-----------|-----------|-----------|---------------|
|                             | DATE      | ENG.      | DATE      | FILE:         |
|                             | 10-NOV-81 |           | 10-NOV-81 | CACHE ADDRESS |
| DESIGNED BY: J. J. J.       | DATE      | 10-NOV-81 | 10-NOV-81 | MAINTENANCE   |
| TESTED BY: J. J. J.         | DATE      | 10-NOV-81 | 10-NOV-81 |               |
| FIRST USED ON OPTION/MODEL: | 10-NOV-81 | 10-NOV-81 | 10-NOV-81 |               |
|                             | 10-NOV-81 | 10-NOV-81 | 10-NOV-81 |               |









AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A1 OF A2

| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                      | QTY                       | PER VARIATION | REFERENCE DESIGNATOR                |
|------|------|------------------|-------------|---------|----------------------------------|---------------------------|---------------|-------------------------------------|
|      |      |                  |             |         |                                  | 00                        |               |                                     |
|      |      |                  |             |         |                                  | VARIATION REVISION LEVEL: |               |                                     |
| 1    | 1    | D-MD-5016076-0-0 | 5016076-01  |         | CACHE DATA MATRIX                | 1                         |               |                                     |
| 2    | 2    |                  | 1012784-00  |         | .047 MFD 50V +80-20% CER         | 114                       |               | C1,C74-C186                         |
| 3    | 3    |                  | 1013466-19  |         | 470.0 MMF 50V 5% CER             | 56                        |               | C2-C45,C55-C66                      |
| 4    | 4    |                  | 1300229-00  |         | 100.0 .25 W 5.0 % CF             | 57                        |               | R7-R38,R43-R66,R67                  |
| 5    | 5    |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF             | 7                         |               | R1,R100,R103,R104,R107-R109         |
| 6    | 6    |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF             | 6                         |               | R101,R102,R105,R106,R110,R111       |
| 7    | 7    |                  | 1300295-00  |         | 330.0 .25 W 5.0 % CF             | 8                         |               | R3-R6,R39-R42                       |
| 8    | 8    |                  | 1311522-00  |         | 200.0 .25 W 5.0 % CF             | 1                         |               | R2                                  |
| 9    | 9    |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN        | 4                         |               | E48-E51                             |
| 10   | 10   |                  | 1911469-00  | DEC     | 8640 RECEIVER,BUS,QUAD,U         | 1                         |               | E9                                  |
| 11   | 11   |                  | 1912860-00  |         | LS259 LATCH 8BIT                 | 1                         |               | E47                                 |
| 12   | 12   |                  | 1913839-00  |         | LS165 SHIFT REG.,8BIT            | 6                         |               | E10,E22,E23,E34-E36                 |
| 13   | 13   |                  | 1921010-01  |         | 74F373 OCTAL TRANSPARENT LA      | 9                         |               | E15-E18,E28-E31,E43                 |
| 14   | 14   |                  | 1921307-01  |         | 74F04 HEX INVERTER               | 8                         |               | E71,E87,E103,E119,E135,E151,        |
|      |      |                  |             |         |                                  |                           |               | CONT E167,E55                       |
| 15   | 15   |                  | 1921313-01  |         | 74F64 AND OR INVERT GATE,4-      | 48                        |               | E68-E70,E72-E74,E84-E86,E88-E90,    |
|      |      |                  |             |         |                                  |                           |               | CONT E100-E102,E104-E106,E52-E54,   |
|      |      |                  |             |         |                                  |                           |               | CONT E56-E58,E116-E118,E120-E122,   |
|      |      |                  |             |         |                                  |                           |               | CONT E132-E134,E136-E138,E148-E150, |
|      |      |                  |             |         |                                  |                           |               | CONT E152-E154,E164-E166,E169,E170, |
|      |      |                  |             |         |                                  |                           |               | CONT E168                           |
| 16   | 16   |                  | 1921330-01  |         | 74F257 MUX,QUAD,2-IN             | 9                         |               | E1-E4,E13,E14,E26,E27,E42           |
| 17   | 17   |                  | 1921 332-01 |         | 74F280 PARITY GEN/CHECK,9-8      | 8                         |               | E6-E8,E19-E21,E32,E33               |
| 18   | 18   |                  | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL QUA | 3                         |               | E39-E41                             |
| 19   | 19   |                  | 2114523-03  |         | 2147H-1 4K MOS RAM 35NS 18       | 72                        |               | E59-E67,E75-E83,E91-E99,            |
|      |      |                  |             |         |                                  |                           |               | CONT E107-E115,E123-E131,E139-E147, |
|      |      |                  |             |         |                                  |                           |               | CONT E155-E163,E171-E179            |
|      |      |                  |             |         |                                  |                           |               | C67-C73                             |
| 20   | 20   |                  | 1017472-00  |         | 10 MFD 35V +50-10% AL EL         | 7                         |               |                                     |
| 21   | 21   |                  | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS   | 1                         |               |                                     |
| 22   | 22   |                  | 9000024-01  |         | EYELET,ROLLED 0.12100X0.192      | 12                        |               |                                     |

|   |            |     |                         |  |                       |                      |                         |      |             |
|---|------------|-----|-------------------------|--|-----------------------|----------------------|-------------------------|------|-------------|
| REVISION HISTORY  |            |     | BASIC PART NO: M7463    |  | DRN: S.MANSOR         | DATE: 16-AUG-83      | D I G I T A L           |      |             |
| ENG   | ECO NUMBER | REV | SECTION A OF A          |  | CHK'D: F.GAROFALO     | DATE: 31-AUG-83      | TITLE PARTS LIST        |      |             |
| ---   | INITIAL    | A   | SECTION VARIATION INDEX |  | DES.ENG: J.STICKNEY   | DATE: 31-AUG-83      | CACHE DATA MATRIX (CDM) |      |             |
|   |            |     | (A) 00                  |  |                       |                      | DOCUMENT NUMBER         |      |             |
|   |            |     | (B)                     |  |                       |                      | SIZE                    | CODE | NUMBER      |
|   |            |     | (C)                     |  |                       |                      |                         |      | REV         |
|   |            |     | (D)                     |  | RESP.ENG.: J.STICKNEY | DATE: 31-AUG-83      | K                       | PL   | M7463-0-D8P |
|   |            |     | (E)                     |  |                       |                      |                         |      | A           |
|   |            |     | (F)                     |  |                       |                      |                         |      |             |
|   |            |     | (H)                     |  | MFG.ENG.: M.KRYZAK    | DATE: 2-NOV-83       | RELEASE DATE: 16-NOV-83 |      |             |
|   |            |     | (J)                     |  |                       |                      |                         |      |             |
|   |            |     | (K)                     |  | ASSEMBLY NUMBER:      | TOP DOCUMENT NUMBER: | FILE NAME:              |      | EDIT #      |
|   |            |     | (L)                     |  | E-UA-M7463-0-0        | 8-DD-M7463-0-0       | Z8057A.PLS              |      | 7           |
|   |            |     | (M)                     |  |                       |                      |                         |      |             |
|   |            |     | (N)                     |  |                       |                      |                         |      |             |
| THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS. |            |     |                         |  |                       |                      |                         |      |             |

AU TOMATED BY PRTLST.4Q(50)

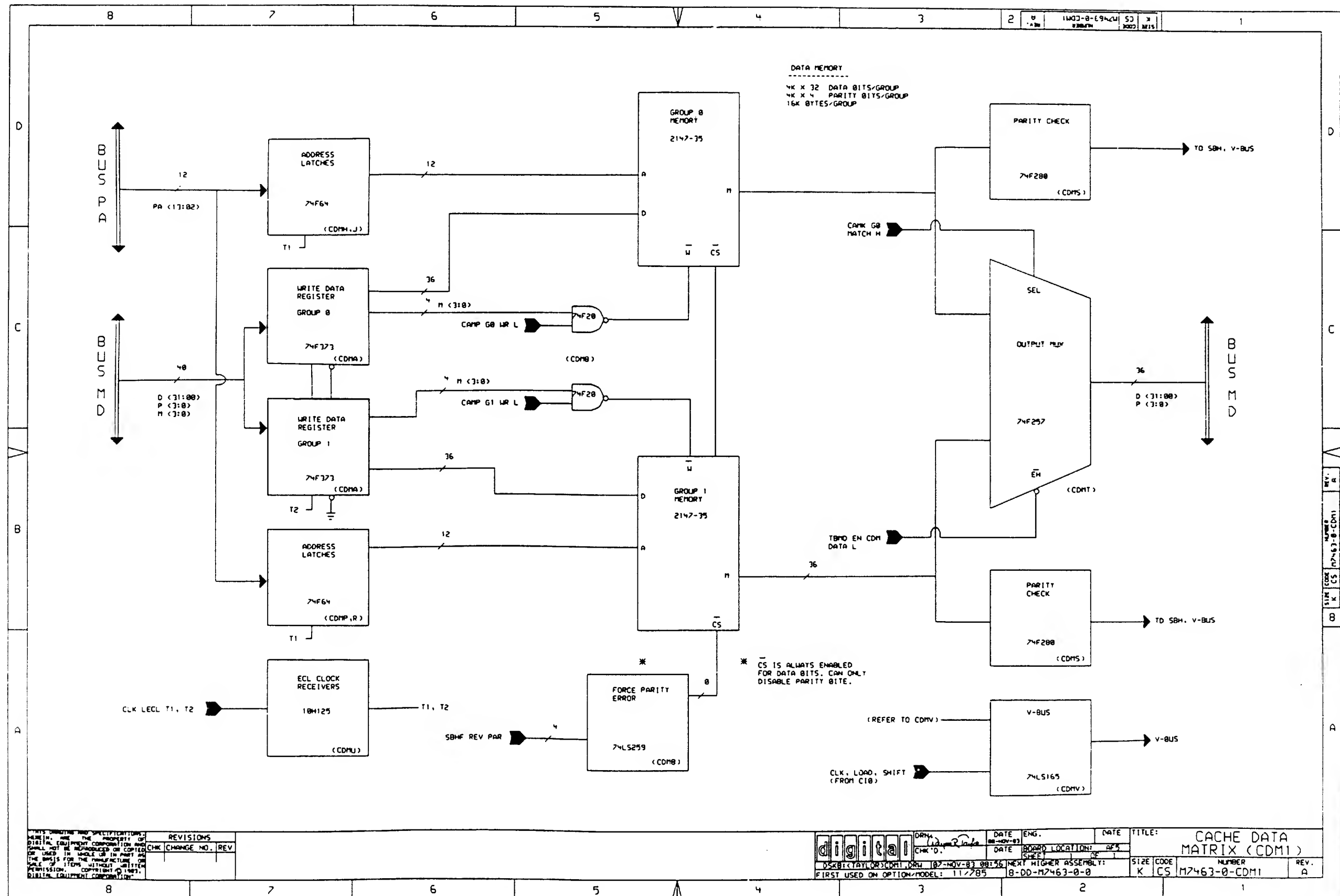
PARTS LIST

SHEET A2 OF

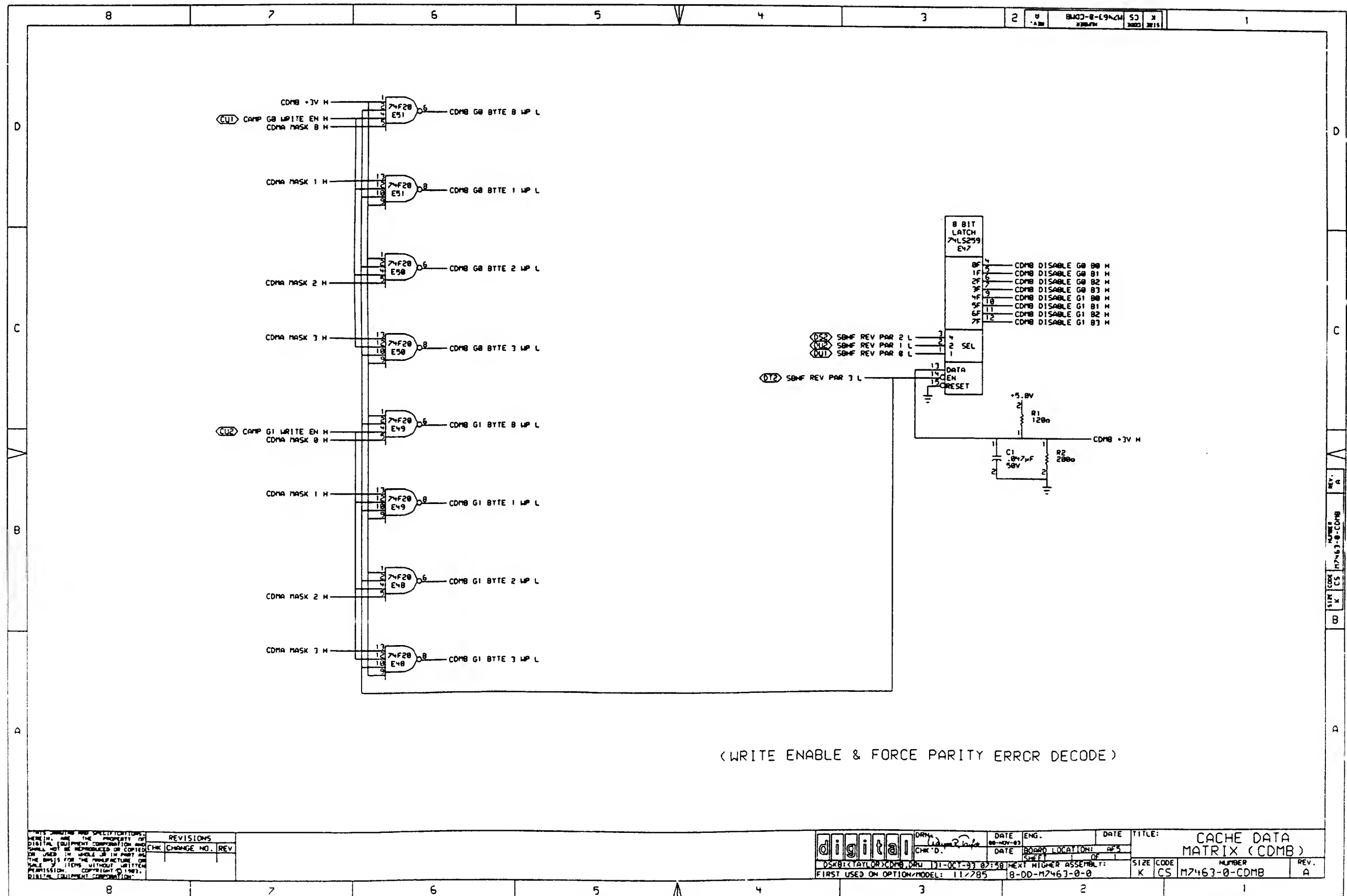
LINE ITEM TOP DOCUMENT PART NUMBER REV DESCRIPTION VARIATION REVISION LEVEL: QTY PER VARIATION 00 REFERENCE DESIGNATOR

23 NOTE: REF.DES. NOT USED:R68-R99,C46-C54  
24 NOTE: SPARE I.C. LOCATIONS:E5,E11,E12,E24,E25,E37,E38,E44,E45,E46

|   |   |   |   |   |   |   |       |                         |                |      |      |                 |     |
|---|---|---|---|---|---|---|-------|-------------------------|----------------|------|------|-----------------|-----|
| C | I | G | I | T | A | L | TITLE | CACHE DATA MATRIX (CDM) | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   |       |                         |                | K    | PL   | M7463-0-DBP     | A   |







THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART OR THE BASIS FOR THE MANUFACTURE OF ANY OTHER EQUIPMENT WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1981 DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

digital

DATE 00-NOV-81  
DATE 11-2-85  
DATE 11-2-85

ENG.  
SHEET 1 OF 1

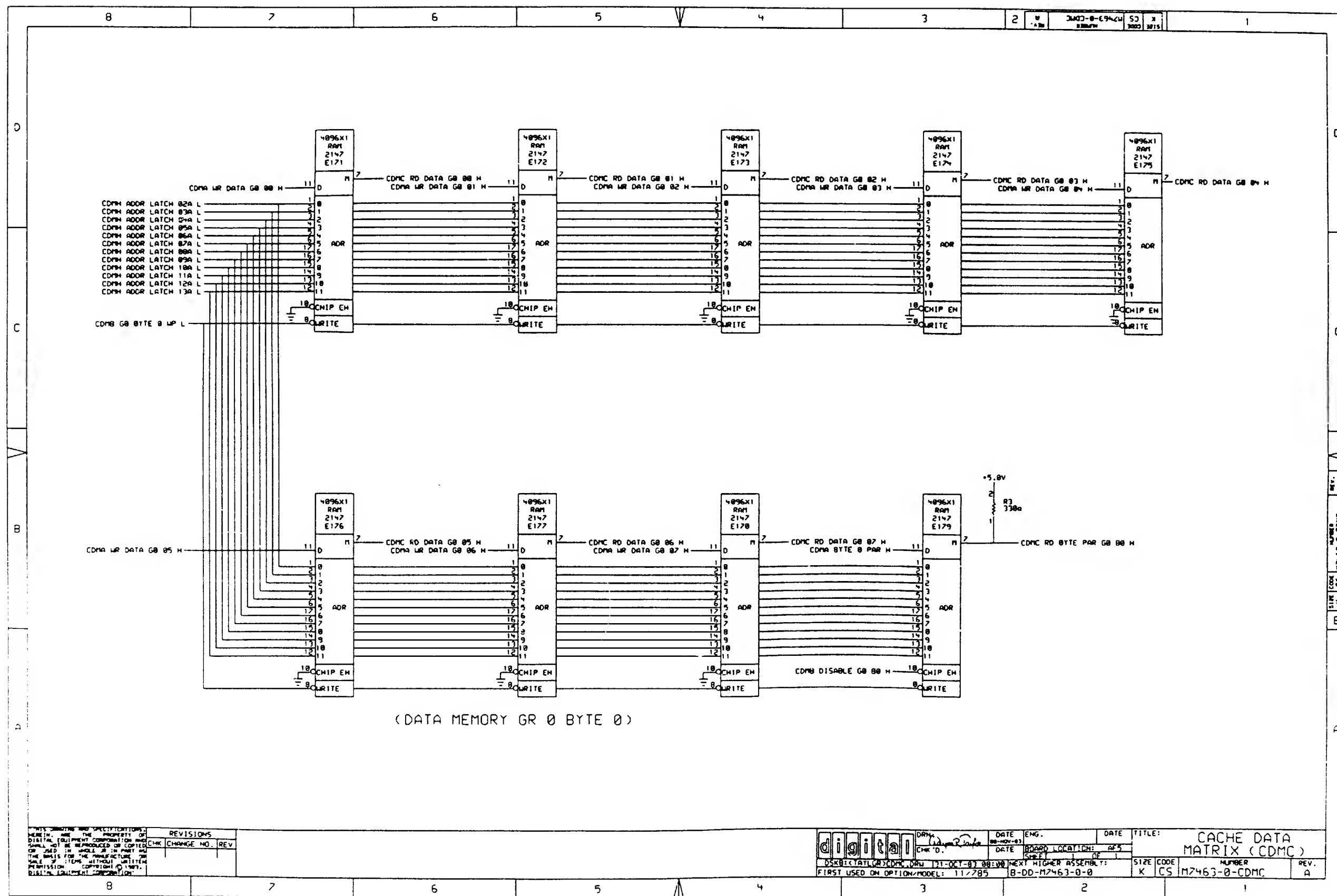
BOARD LOCATION: REF 1

TITLE: CACHE DATA MATRIX (CDMB)

SIZE CODE K CS

NUMBER M7463-0-CDMB

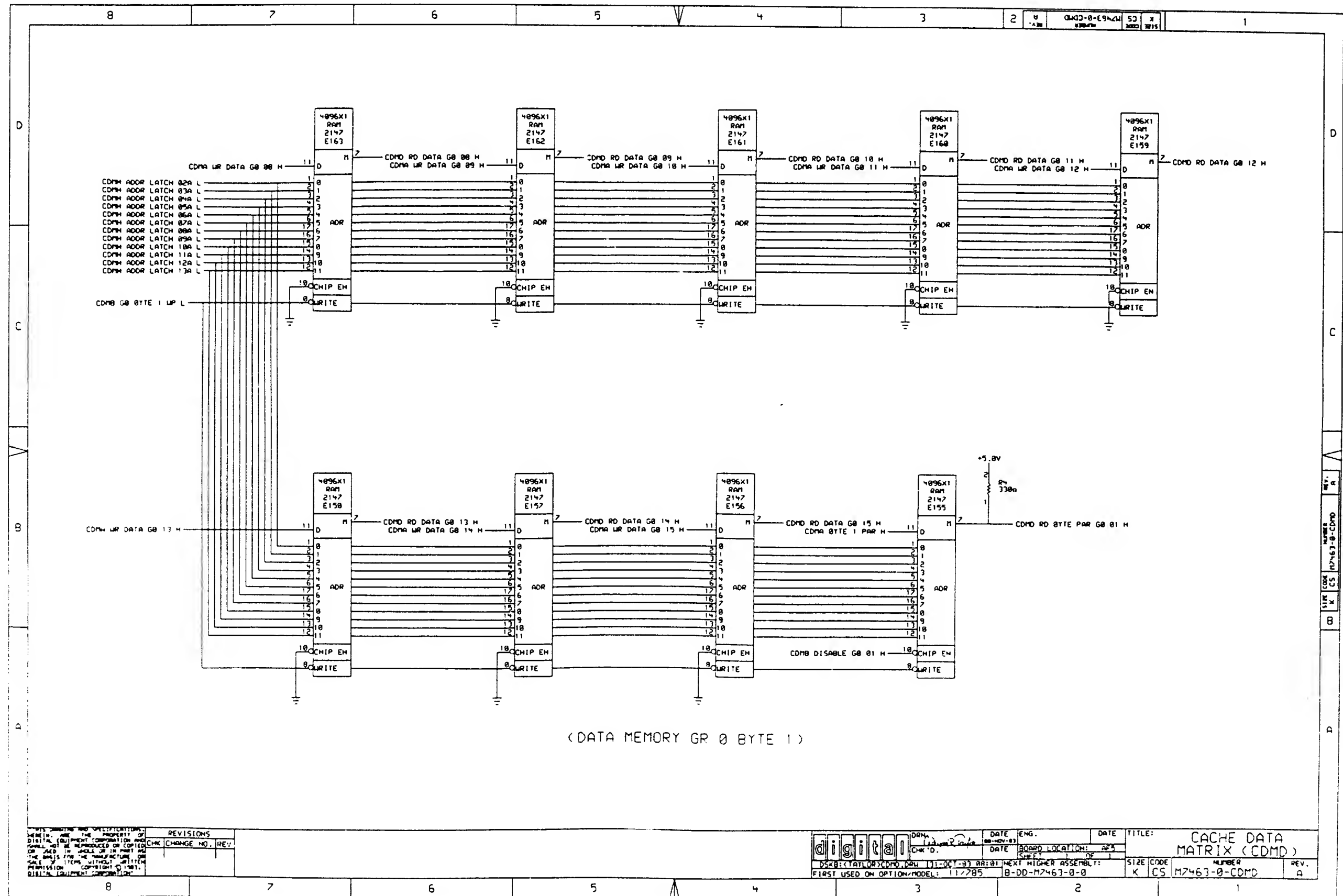
REV. A



THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART FOR  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1987,  
DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|                             |          |                |          |                          |
|-----------------------------|----------|----------------|----------|--------------------------|
|                             | DATE     | ENG.           | DATE     | TITLE:                   |
|                             | 11-01-83 | AF5            | 11-01-83 | CACHE DATA MATRIX (CDMC) |
| DSK:ICAT:CDMC:RAW           | 11-01-83 | AF5            | 11-01-83 | AF5                      |
| FIRST USED ON OPTION/MODEL: | 11/785   | 8-DD-M2463-0-0 |          |                          |
| SIZE                        | CODE     | NUMBER         | REV.     |                          |
| K                           | CS       | M2463-0-CDMC   | A        |                          |

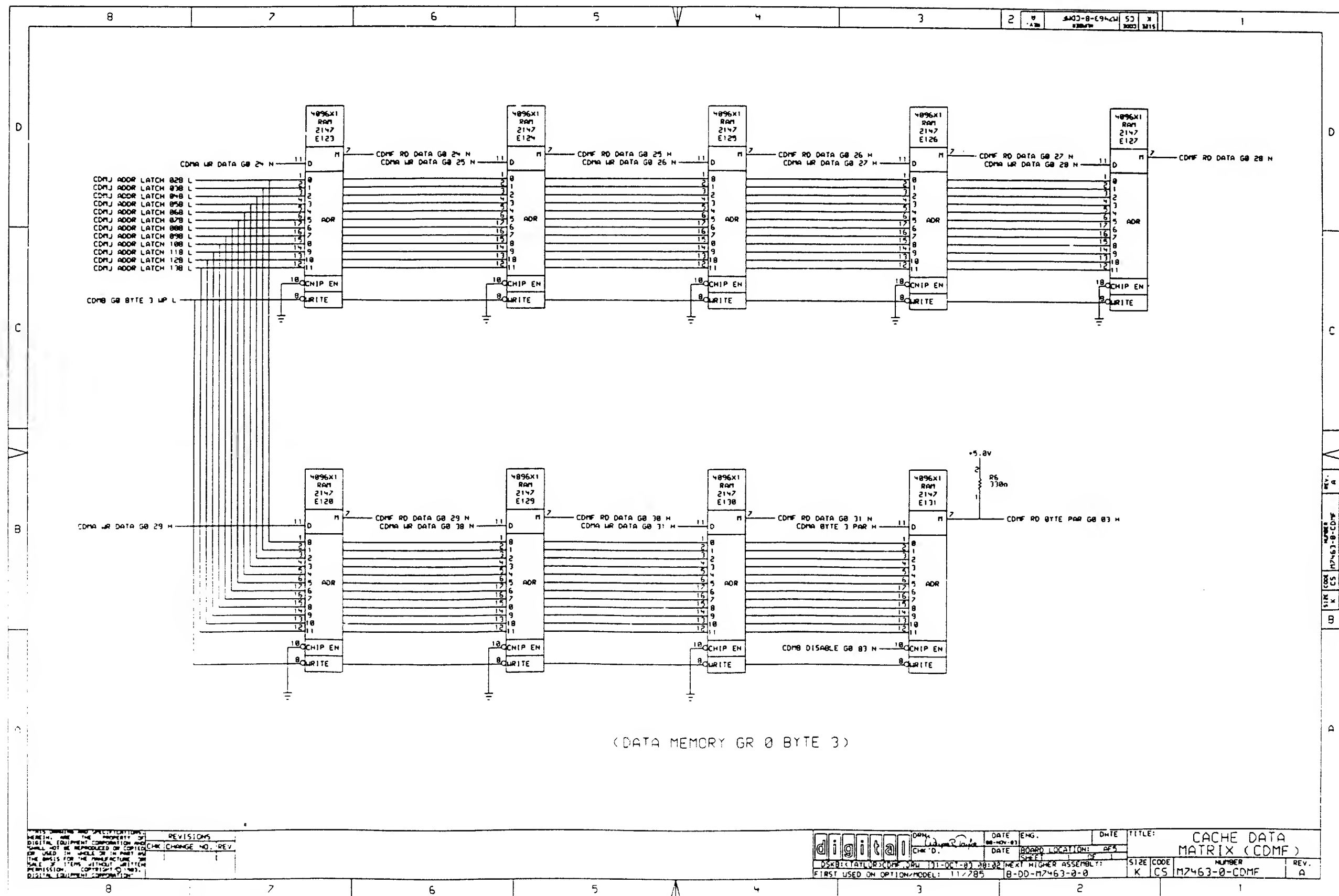


| REVISIONS |                 |
|-----------|-----------------|
| CHK       | CHANGE NO. REV. |
|           |                 |
|           |                 |

|                             |          |                |          |                         |
|-----------------------------|----------|----------------|----------|-------------------------|
| digital                     | DATE     | ENG.           | DATE     | TITLE:                  |
|                             | 11-01-83 | APB            | 11-01-83 | CACHE DATA MATRIX (CMD) |
| DSK:CTATLOR/CMD,RAW         | 11-01-83 | APB            | 11-01-83 | SIZE CODE               |
| FIRST USED ON OPTION MODEL: | 11-285   | B-DD-M7463-0-0 |          | NUMBER                  |
|                             |          |                |          | REV.                    |
|                             |          |                |          | A                       |



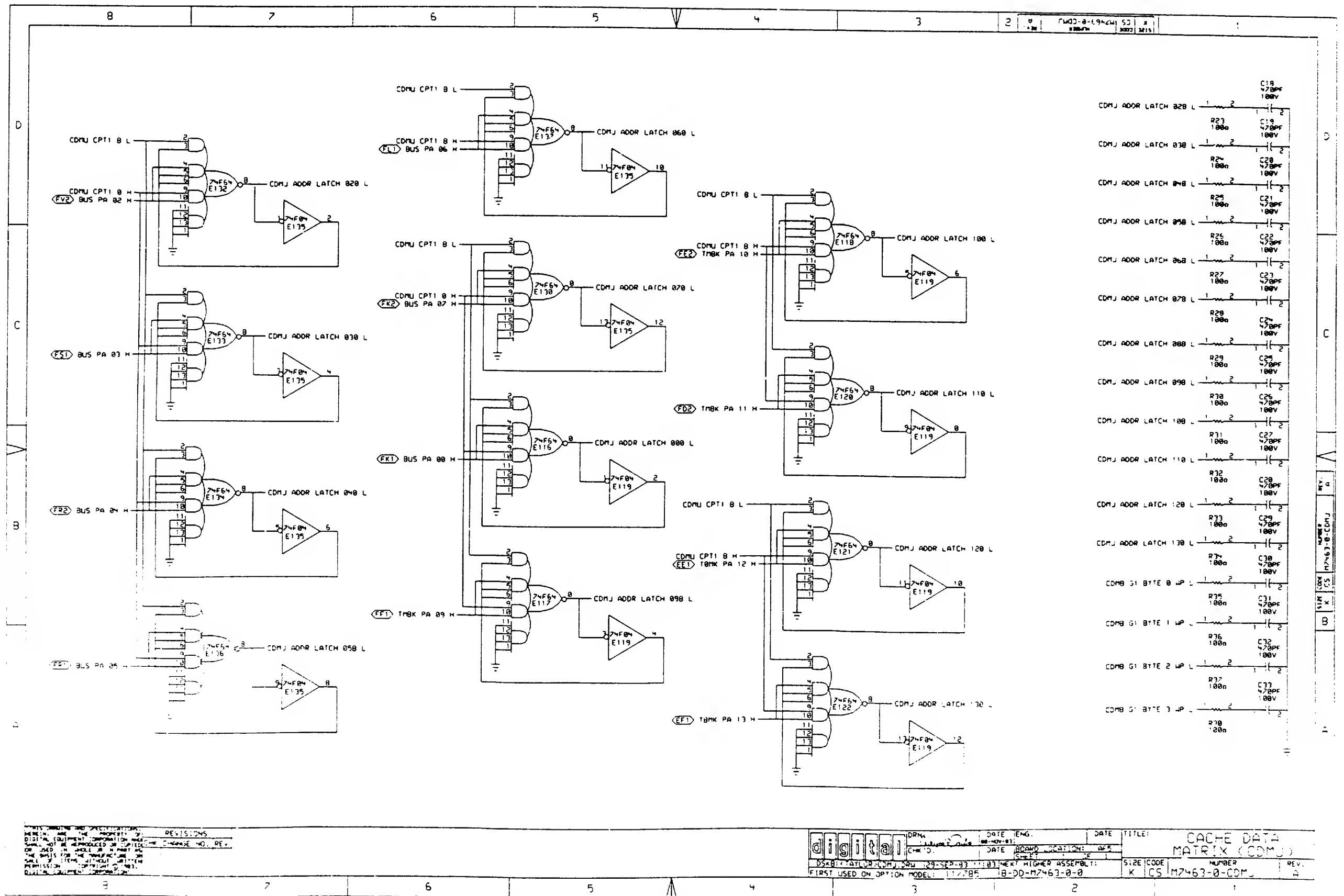




| REVISIONS | CHG. CHANGE NO. | REV. |
|-----------|-----------------|------|
| 1         | 1               | 1    |

|                                     |               |                     |       |                                 |
|-------------------------------------|---------------|---------------------|-------|---------------------------------|
| <b>digital</b>                      | DATE: 11/2/85 | ENG.:               | DATE: | TITLE: CACHE DATA MATRIX (CDMF) |
| CHK'D:                              | DATE:         | BOARD LOCATION: AFS | DATE: | SIZE CODE: K CS                 |
| FIRST USED ON OPTION/MODEL: 11/2/85 |               |                     |       | NUMBER: M7463-0-CDMF            |
|                                     |               |                     |       | REV. A                          |





THIS DRAWING AND SPECIFICATION ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.

REVISIONS  
CHANGE NO. REV.

**digital**

DATE ENG. 10-NOV-81  
DATE BOARD LOCATION: 10-NOV-81  
DATE TEST: 10-NOV-81  
DATE NEXT HIGHER ASSEMBLY: 10-NOV-81  
FIRST USED ON OPTION MODEL: 117285 18-00-A7463-0-0

TITLE: CACHE DATA MATRIX (CDMU)  
SIZE CODE K CS  
NUMBER 18-00-A7463-0-0  
REV. 4

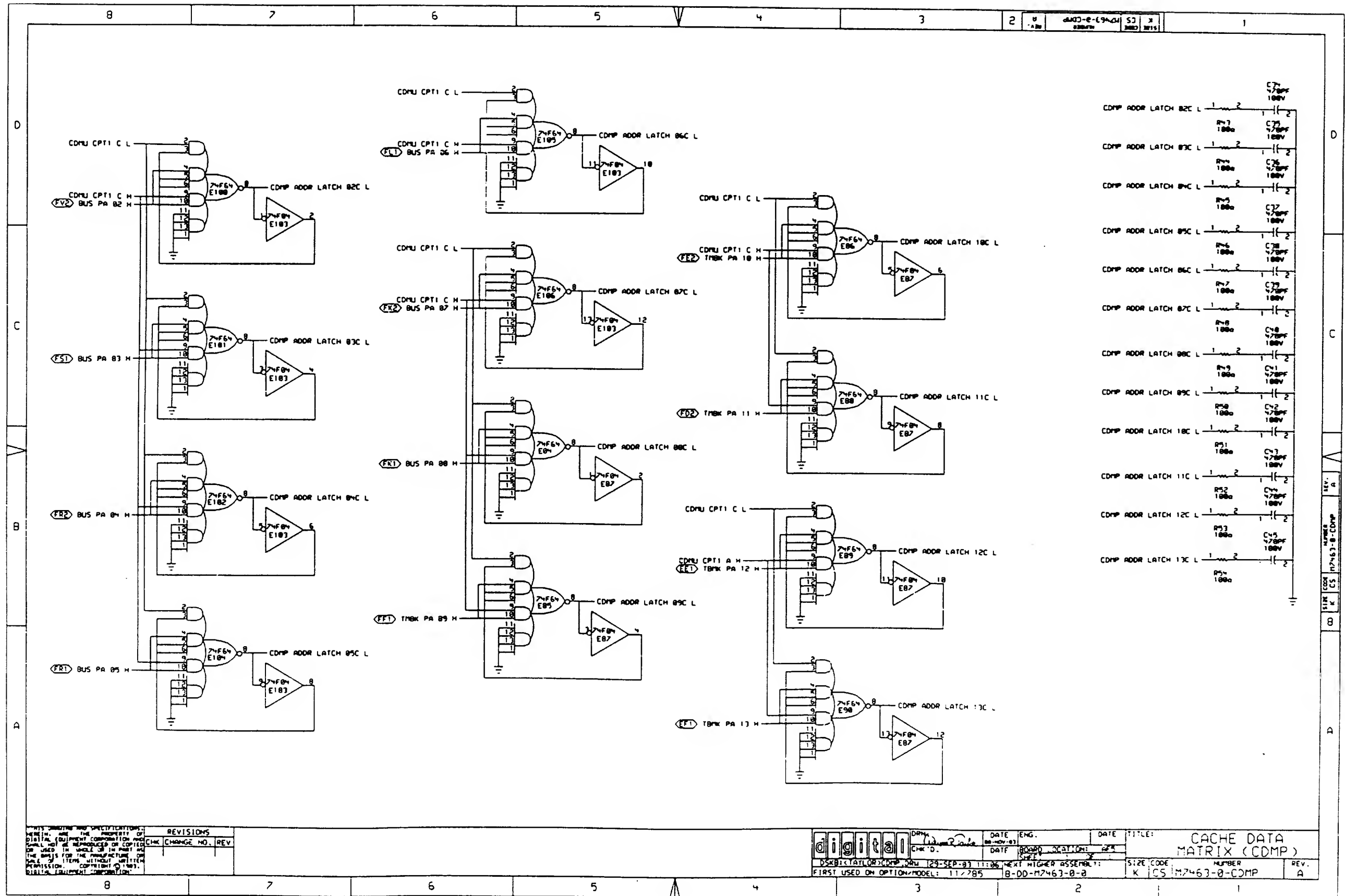










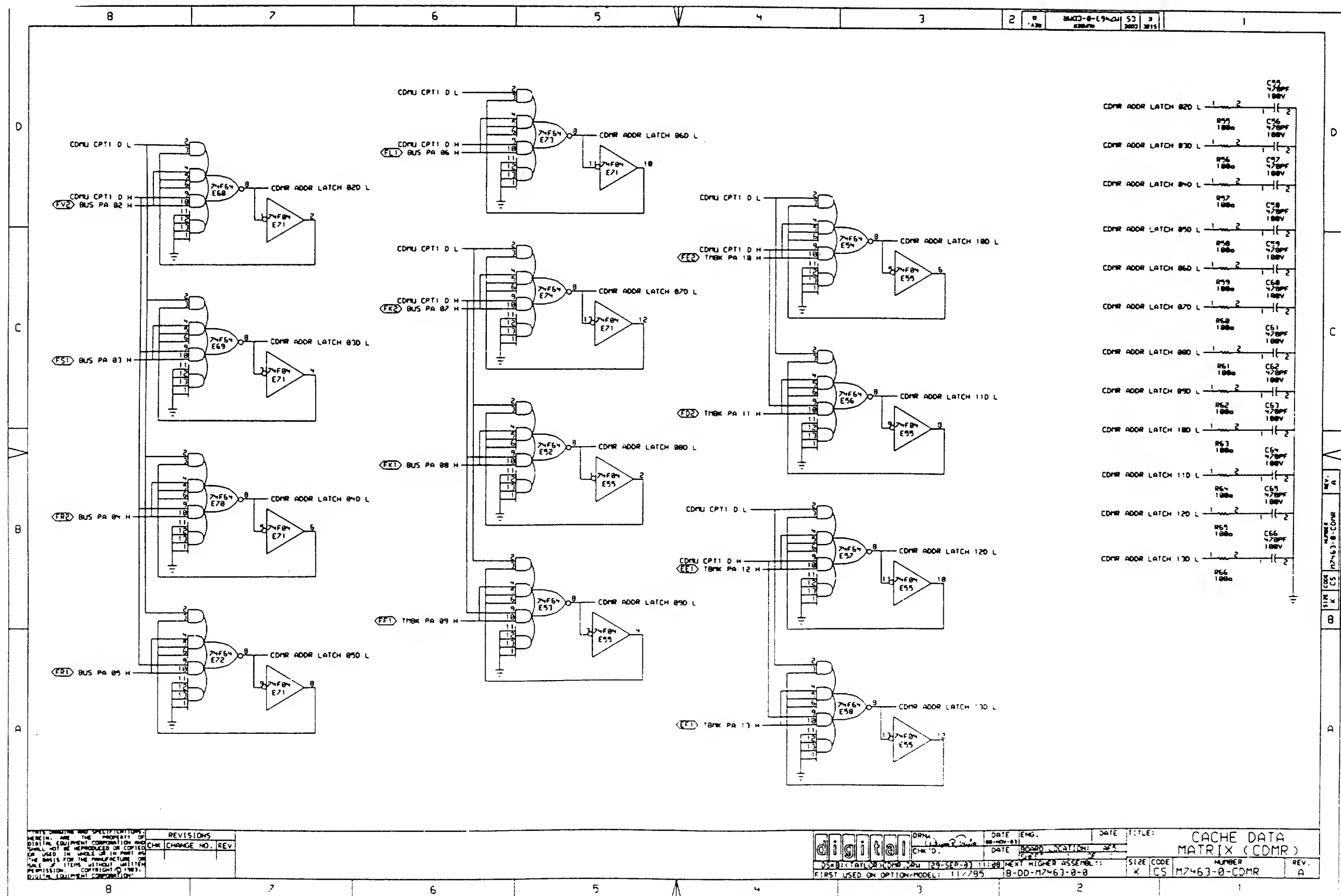


THIS DRAWING AND SPECIFICATIONS  
HEREIN, ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OF  
ANY ITEM WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1985,  
DIGITAL EQUIPMENT CORPORATION.

| REV. | CHANGE NO. | REV. |
|------|------------|------|
| 1    | 1          | 1    |

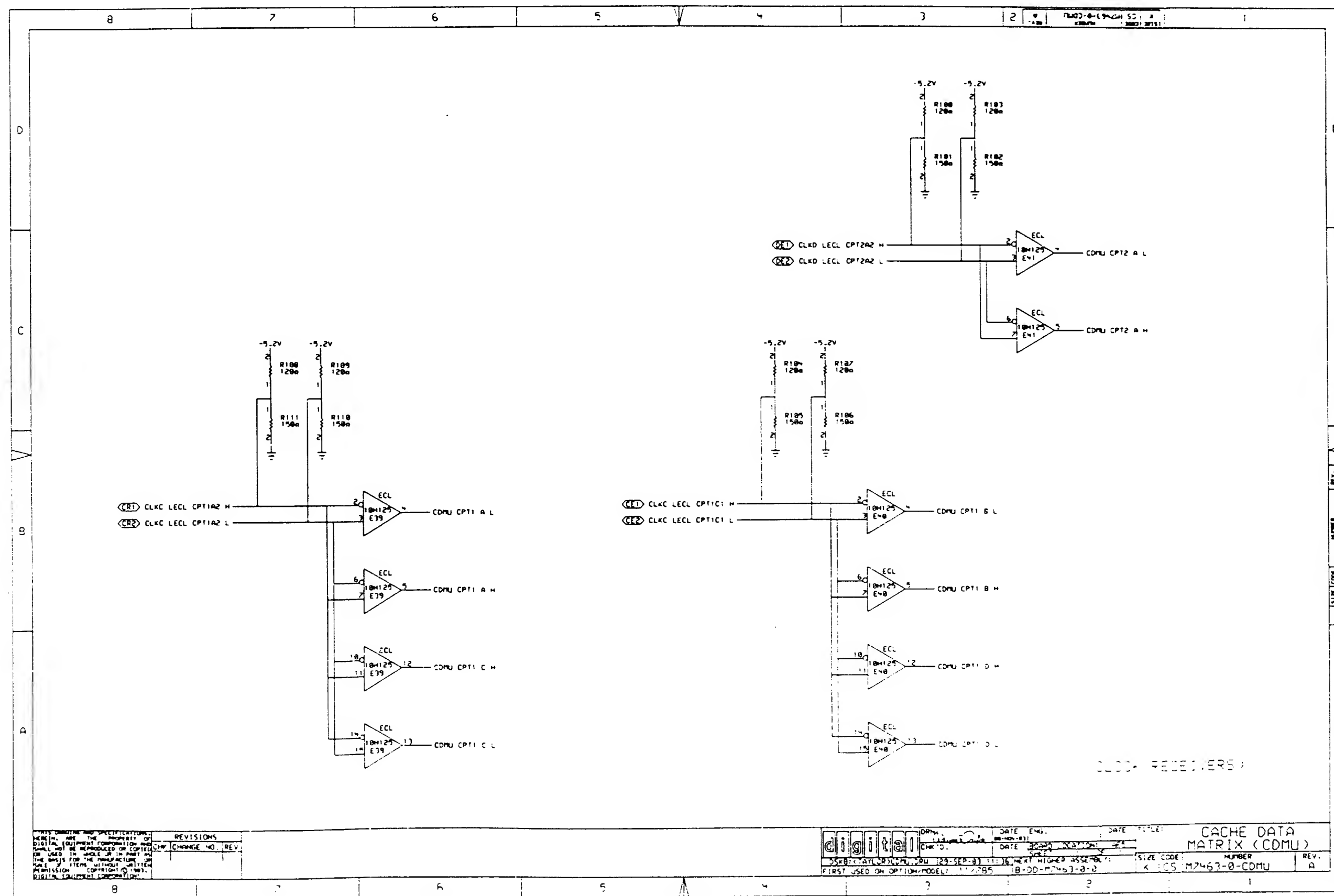
|                                    |                  |      |                  |           |                             |
|------------------------------------|------------------|------|------------------|-----------|-----------------------------|
| digital                            | DATE             | ENG. | DATE             | FILE:     | CACHE DATA<br>MATRIX (CDMP) |
| 05281(1/10/85) CDMP 300            | 129-SEP-85 11:06 | CDMP | 129-SEP-85 11:06 | SIZE CODE | NUMBER                      |
| FIRST USED ON OPTION MODEL: 11/285 |                  |      |                  | K CS      | M2463-0-COMP                |

|      |   |
|------|---|
| REV. | A |
|------|---|









THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART IN  
THE MANUFACTURE OF ANY ITEM  
OR ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983  
DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |      |
|-----------|------------|------|
| CHG       | CHANGE NO. | REV. |
|           |            |      |

**digital**  
DATE: 12-29-83  
FIRST USED ON OPTION: 11/2/85

DATE: 12-29-83  
DATE: 12-29-83  
DATE: 12-29-83

CACHE DATA  
MATRIX (CDMU)  
SIZE CODE: K  
NUMBER: M2463-0-CDMU  
REV: A







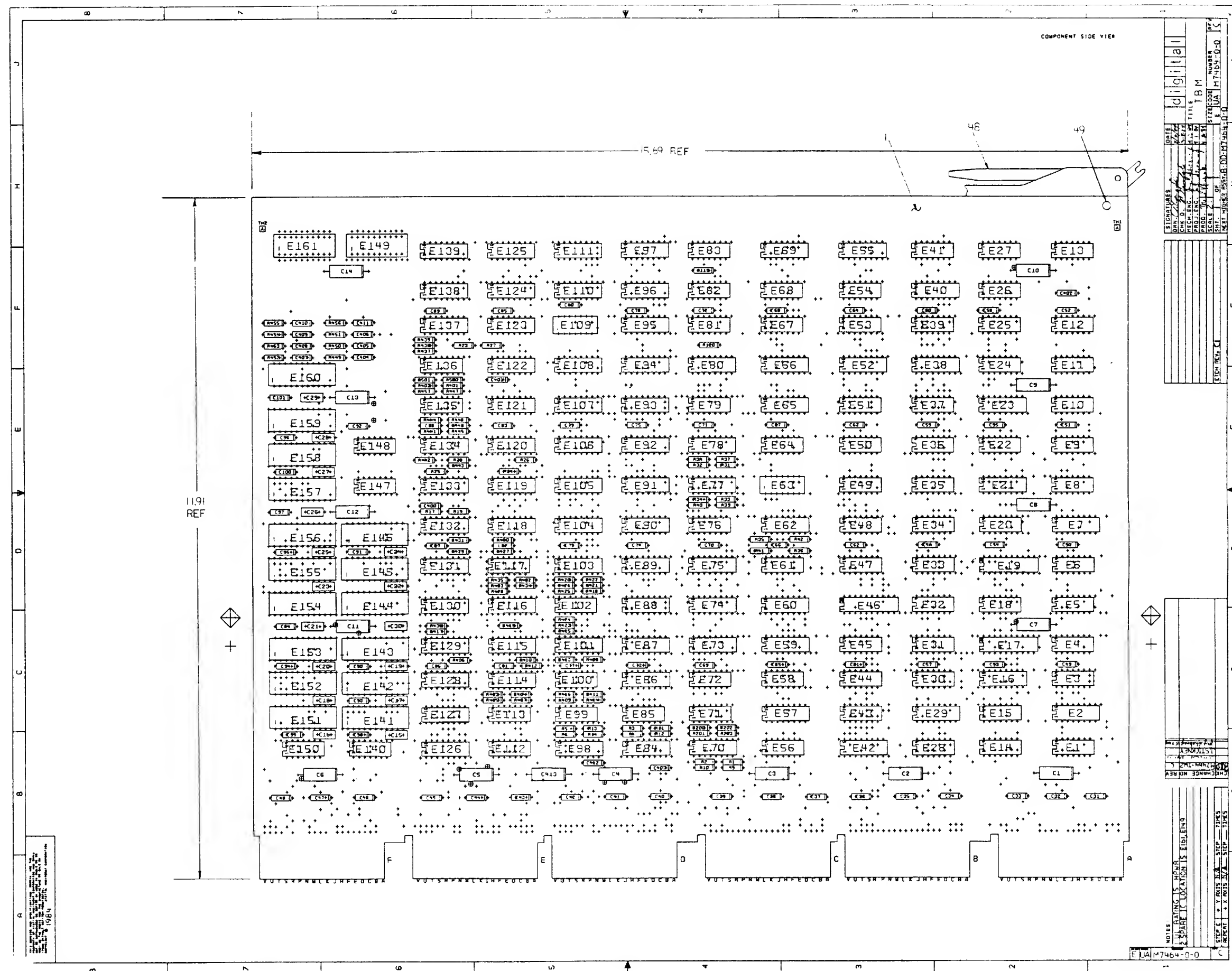






| DRAWING NO.   | NO. OF SHTS. | PART NO. | DESCRIPTION             | REVISIONS |                      |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
|---|--------------|----------|-------------------------|-----------|----------------------|----------|-------|------|----------------------------------|--------------|--|--------|--|------|--|--|--|--|--|--|--|--|---|
|   | —            | M7463-00 | CACHE DATA MATRIX (CDM) | A         | B                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| E-UA-M7463-0-0  | 1            |          | UNIT ASSEMBLY           | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-PL-M7463-0-DBP  | 2            |          | PARTS LIST              | A         | B                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-PC-M7463-0-DBI  | —            |          | P.C. DATA BASE          | D         | D                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| D-MD-5016076-0-0  | 5            |          | CIRCUIT DRILL & ETCH    | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| E-EC-5016076-0-0  | 2            |          | ETCH CUT                | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMA   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMB   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMC   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMD   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDME   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMF   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMH   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMJ   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMK   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDML   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMM   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMN   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMP   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMR   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMS   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMT   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMU   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMV   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMW   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| K-CS-M7463-0-CDMX   | 1            |          | SCHEMATIC               | A         | A                    |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
| NOTES:  |              |          | REVISIONS               |           |                      |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
|   |              |          | DATE                    | CHG NO.   |                      |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
|   |              |          | INIT                    | REV.      |                      |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
|   |              |          | 11/83                   | 2/84      |                      |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  | A |
| <div>THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.</div> <div>COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION</div> |              |          | <div>digital</div>      |           | USED ON OPTION/MODEL |          | DRN.  |      | TITLE<br>CACHE DATA MATRIX (CDM) |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
|   |              |          |                         |           |                      |          | CHK'D |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
|   |              |          |                         |           |                      |          | ENG.  |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
|   |              |          |                         |           |                      |          | PROD. |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
|   |              |          |                         |           |                      |          |       |      |                                  |              |  |        |  |      |  |  |  |  |  |  |  |  |   |
|   |              |          |                         | 11-7-83   |                      | 11-15-83 |       | SIZE |                                  | CODE         |  | NUMBER |  | REV. |  |  |  |  |  |  |  |  |   |
|   |              |          |                         |           |                      |          |       | B DD |                                  | M7463-0-0    |  | B      |  |      |  |  |  |  |  |  |  |  |   |
|   |              |          |                         |           |                      |          |       |      |                                  | SHEET 1 OF 2 |  |        |  |      |  |  |  |  |  |  |  |  |   |

[illegible]



AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHFFT A1 OF A2

| LINE ITEM |    | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                   | QTY PER VARIATION | REFERENCE DESIGNATOR  |
|-----------|----|------------------|-------------|---------|-------------------------------|-------------------|---|
|           |    |                  |             |         | VARIATION REVISION LEVEL:     | 00                |   |
| 1         | 1  | D-MD-5016075-0-0 | 5016075-01  |         | TRANSLATER BUFFER METRIX      | 1                 |   |
| 2         | 2  |                  | 1010978-36  |         | .1 MFD 50V 10% CER            | 16                | C15-C30   |
| 3         | 3  |                  | 1017472-00  |         | 10 MFD 35V +50-10% AL EL      | 15                | C1-C14,C413   |
| 4         | 4  |                  | 1012784-00  |         | .047 MFD 50V +80-20% CER      | 76                | C31-C101,C400-C403,C412   |
| 5         | 5  |                  | 1013466-19  |         | 470.0 MMF 50V 5% CER          | 8                 | C404-C411   |
| 6         | 6  |                  | 1300229-00  |         | 100.0 .25 W 5.0 % CF          | 8                 | R449-R456   |
| 7         | 7  | BLANK            |             |         | *** THIS ITEM IS NOT USED *** | -                 |   |
| 8         | 8  |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF          | 11                | R1-R6,R200,R201,R23-R25   |
| 9         | 9  |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF          | 8                 | R9-R14,R202,R203  |
| 10        | 10 |                  | 1300295-00  |         | 330.0 .25 W 5.0 % CF          | 8                 | R31-R36,R402,R17  |
| 11        | 11 |                  | 1301775-00  |         | 820.0 .25 W 5.0 % CF          | 56                | R18,R37-R42,R401,R403-R439,<br>CONT R441-R448,R457,R500,R501                        |
| 12        | 12 |                  | 1301477-00  |         | 82.0 .25 W 5.0 % CF           | 2                 | R119,R120   |
| 13        | 13 |                  | 1301972-00  |         | 270.0 .25 W 5.0 % CF          | 3                 | R26-R28   |
| 14        | 14 |                  | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN     | 6                 | E4,E10,E24,E32,E34,E37  |
| 15        | 15 |                  | 1921307-01  |         | 74F04 HEX INVERTER            | 16                | E6,E15,E36,E48,E53,E54,E58,E71,<br>CONT E79,E85,E99,E140,E150,E147,E83,<br>CONT E72 |
| 16        | 16 |                  | 1921309-01  |         | 74F10 NAND GATE,TRIPLE,3-I    | 4                 | E3,E25,E30,E33  |
| 17        | 17 |                  | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN    | 2                 | E47,E51   |
| 18        | 18 |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN     | 3                 | E49,E64,E112  |
| 19        | 19 |                  | 1921313-01  |         | 74F64 AND OR INVERT GATE,4-   | 12                | E1,E14,E26-E28,E43,E67,E68,E76,<br>CONT E81,E82,E13                                 |
| 20        | 20 |                  | 1921314-01  |         | 74F74 FF-D,DUAL,POS.,EDGE     | 1                 | E9  |
| 21        | 21 |                  | 1910545-00  |         | 74S112 FF-JK DUAL,EDGE TRIG   | 2                 | E21,E23   |
| 22        | 22 |                  | 1921319-01  |         | 74F153 MUX,DUAL,4-IN          | 12                | E52,E86,E88,E93,E96,E107,E108,<br>CONT E110,E111,E124,E138,E139                     |
| 23        | 23 |                  | 1921320-01  |         | 74F157 MUX,QUAD,2-IN          | 5                 | E80,E90,E120,E123,E130  |
| 24        | 24 |                  | 1921321-01  |         | 74F158 MUX,QUAD,2-IN          | 1                 | E69   |
| 25        | 25 |                  | 1921327-01  |         | 74F194 SHIFT REG,UNIV,8IDIR   | 15                | E29,E40,E57,E62,E65,E66,E55,E77,  |

| REVISION HISTORY |             |     | BASIC PART NO: M7464    |  | DRN: F.SMART       |  | DATE: 22-MAR-83      |  | D I G I T A L           |  |  |  |
|------------------|-------------|-----|-------------------------|--|--------------------|--|----------------------|--|-------------------------|--|--|--|
| ENG              | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D: F.GAROFALO  |  | DATE: 22-MAR-83      |  | TITLE PARTS LIST        |  |  |  |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  |                    |  |                      |  |                         |  |  |  |
| JS               | M7464-TW001 | B   | (A) 00                  |  |                    |  |                      |  |                         |  |  |  |
| JS               | M7464-TW002 | C   | (B)                     |  | DES.ENG: D.BINDER  |  | DATE: 22-MAR-83      |  | DOCUMENT NUMBER         |  |  |  |
|                  |             |     | (C)                     |  |                    |  |                      |  | SIZE CODE NUMBER REV    |  |  |  |
|                  |             |     | (D)                     |  | RESP.ENG: D.BINDER |  | DATE: 22-MAR-83      |  | K PL M7464-0-DBP C      |  |  |  |
|                  |             |     | (E)                     |  |                    |  |                      |  |                         |  |  |  |
|                  |             |     | (F)                     |  | MFG.ENG: M.KRYSAK  |  | DATE: 22-MAR-83      |  | RELEASE DATE: 08-MAY-84 |  |  |  |
|                  |             |     | (H)                     |  |                    |  |                      |  |                         |  |  |  |
|                  |             |     | (J)                     |  | ASSEMBLY NUMBER:   |  | TOP DOCUMENT NUMBER: |  | FILE NAME: EDIT #       |  |  |  |
|                  |             |     | (K)                     |  | E-UA-M7464-0-0     |  | 8-DD-M7464-0-0       |  | Z3944C.PLS 18           |  |  |  |
|                  |             |     | (L)                     |  |                    |  |                      |  |                         |  |  |  |
|                  |             |     | (M)                     |  |                    |  |                      |  |                         |  |  |  |
|                  |             |     | (N)                     |  |                    |  |                      |  |                         |  |  |  |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."

AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A2 OF A2

| LINE ITEM |    | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                     | QTY PER VARIATION | REFERENCE DESIGNATOR                |
|-----------|----|--------------|-------------|---------|---------------------------------|-------------------|-------------------------------------|
|           |    |              |             |         | VARIATION REVISION LEVEL:       | 00                |                                     |
| 26        | 26 |              | 1921318-01  |         | 74F151 MUX,8-IN                 | 1                 | CONT E91,E92,E95,E97,E121,E122,E125 |
| 27        | 27 |              | 1921324-01  |         | 74F175 FF-D,QUAD                | 2                 | E38                                 |
| 28        | 28 |              | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL    | 3                 | E2,E7                               |
| 29        | 29 |              | 1911469-00  | DEC     | 8640 RECEIVER,8US,QUAD,U        | 1                 | E70,E84,E98                         |
| 30        | 30 |              | 1921332-01  |         | 74F280 PARITY GEN/CHECK,9-8     | 6                 | E56                                 |
| 31        | 31 |              | 1921330-01  |         | 74F257 MUX,QUAD,2-IN            | 2                 | F100,F102,E113,E117,E135,E136       |
| 32        | 32 |              | 1921316-01  |         | 74F138 DECODER/DEMUX,1-OF-8     | 1                 | E127,E128                           |
| 33        | 33 |              | 1911712-00  |         | 74S51 AND-OR GATE-INVERT D      | 3                 | E73                                 |
| 34        | 34 |              | 1911983-00  |         | 74S133 NAND GATE-POSITIVE 1     | 3                 | E22,E41,E61                         |
| 35        | 35 |              | 1921306-01  |         | 74F02 NOR GATE,QUAD,2-IN        | 5                 | E16,E75,E78                         |
| 36        | 36 |              | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN        | 4                 | E5,E8,E11,E39,E44                   |
| 37        | 37 |              | 1921329-01  |         | 74F253 MUX,DUAL,4-IN            | 8                 | E31,E35,E50,E148                    |
|           |    |              |             |         |                                 |                   | E87,E89,E94,E101,E103,E114,E115,    |
| 38        | 38 |              | 1912696-00  |         | LS194A SHIFT REG.,48IT BI-D     | 3                 | CONT E129                           |
| 39        | 39 |              | 1912746-00  | DEC     | 74S37 NAND GATE-QUAD 2IN        | 3                 | E116,E118,E119                      |
| 40        | 40 |              | 1912860-00  |         | LS259 LATCH 88IT                | 1                 | E12,E20,E45                         |
| 41        | 41 |              | 1921322-01  |         | 74F161 BINARY COUNTER,PRES      | 2                 | E132                                |
| 42        | 42 |              | 1921312-01  |         | 74F32 OR GATE,QUAD,2-IN         | 1                 | E126,E133                           |
| 43        | 43 |              | 1921010-01  |         | 74F373 OCTAL TRANSPARENT LA     | 3                 | E18                                 |
| 44        | 44 |              | 1913788-00  |         | 26S10 TRANSCEIVER,8US,QUA       | 6                 | E17,E19,E46                         |
| 45        | 45 |              | 1913839-00  |         | LS165 SHIFT REG.,88IT           | 4                 | E104-E106,E131,E134,E137            |
| 46        | 46 |              | 2121818-01  | MOS     | STATIC RAM 256X4 SEPARATE I/    | 16                | E42,E59,E60,E74                     |
| 47        | 47 |              | 1616653-00  |         | DELAY= 50NS,10TAPS WITH TTLBU   | 1                 | E141-E146,E151-E160                 |
| 48        | 48 |              | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS  | 1                 | E109                                |
| 49        | 49 |              | 9000024-01  |         | EYELET,ROLLED 0.1210DXC.192     | 12                |                                     |
| 50        | 50 |              | 1616653-01  |         | DELAY= 100NS,10TAPS WITH TTLBU  | 1                 |                                     |
| 51        | 51 |              | 9105740-55  |         | WIRE(WRAP) 30AWG KYNAR UL14 A/R |                   | E63                                 |

52 NOTE: 1. UNUSED REFERENCE DESIGNATORS = C102 - C399,R7,R8,R15,R16,R19-R22,R29  
53 NOTE: R30,R43-R118,R121-R199,R204-R400,R440,R449-R456,R458-R499  
54 NOTE: SPARE I.C. LOCATIONS ARE E149 AND E161.

|   |   |   |   |   |   |   |       |                |      |      |                 |     |
|---|---|---|---|---|---|---|-------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   | TBM   |                | K    | PL   | M7464-0-DBP     | C   |

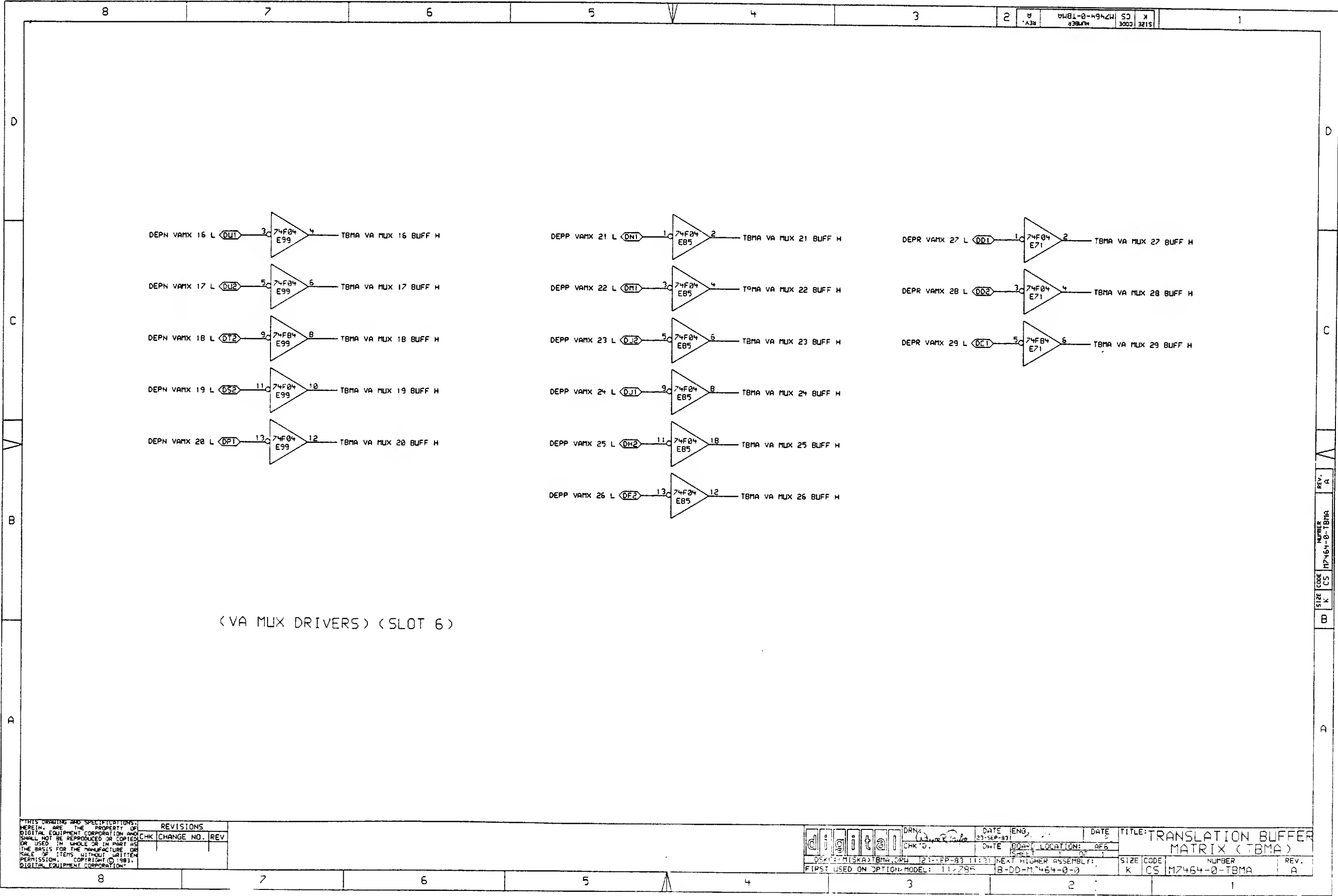






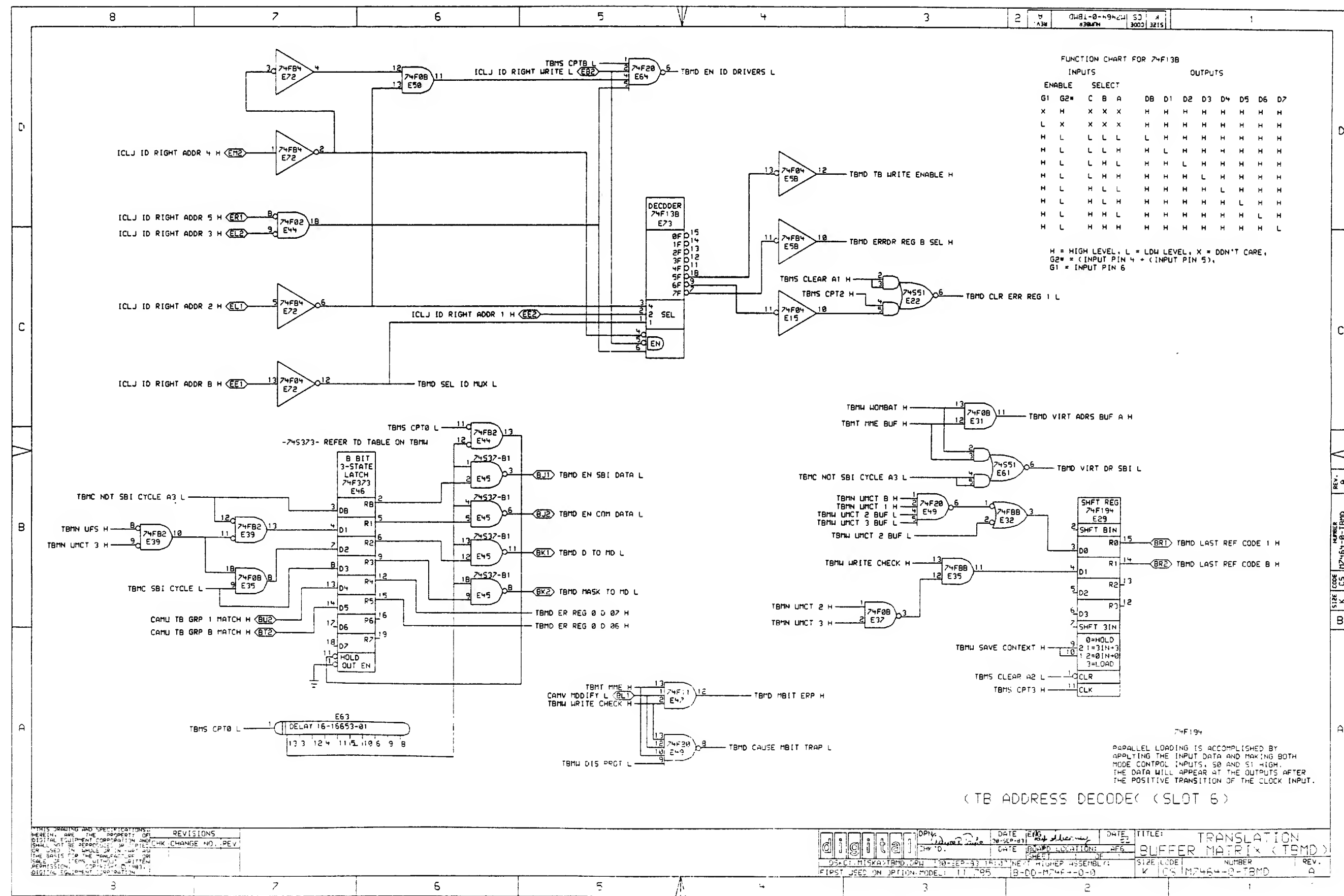


|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| 8   | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| <div><div><div>SIGNAL NAMEPAGE NUMBER(S)</div><div>TBMU EN UNALIGN TRAP H TBMU</div><div>TBMU FAST LDAD IPA H TBMU.M</div><div>TBMU IB RCHK L TBMU</div><div>TBMU LATCH CS ERR L TBMU.W</div><div>TBMU LOAD IPA L TBMU.W.X</div><div>TBMU MBIT UTRAP L TBMU.W</div><div>TBMU MISS UTRAP L TBMU.W</div><div>TBMU RANDOM G1 L TBMU.X</div><div>TBMU READ V NEWPC L TBMU.N</div><div>TBMU SAVE CONTEXT H TBMU.D</div><div>TBMU STOP CYCLE L TBMU.W</div><div>TBMU TB PAR UTRAP L TBMU.U</div><div>TBMU TEST OR NOP L TBMU.N</div><div>TBMU U NEWPC L TBMU.U.X.M</div><div>TBMU UADS BUF L TBMU.W</div><div>TBMU UMCT 8 BUF L TBMU</div><div>TBMU UMCT 1 BUF L TBMU</div><div>TBMU UMCT 2 BUF L TBMU.W</div><div>TBMU UMCT 3 BUF L TBMU.D</div><div>TBMU UVIRT H TBMU.N</div><div>TBMU UVIRT L TBMU</div><div>TBMU VIRT OPER L TBMU</div><div>TBMU WAS STALL H TBMU.U</div><div>TBMU WAS STALL L TBMU</div><div>TBMU WOMBAT N TBMU.W.K</div><div>TBMU WRITE CNECK H TBMU.W</div><div>TBMX BAD IPA H TBMX.U</div><div>TBMX BRANCH CODE 8 H TBMX</div><div>TBMX BRANCH CODE 1 N TBMX</div><div>TBMX ER REG 1 D B0 N TBMX.V</div><div>TBMX ER REG 1 D B1 N TBMX.V</div><div>TBMX ER REG 1 D B2 N TBMX.V</div><div>TBMX ER REG 1 D B3 H TBMX.V</div><div>TBMX G8 WP EN H TBMF.X</div><div>TBMX G1 WP EN TBMF</div><div>TBMX G1 WP EN H TBMX</div><div>TBMX IB ERR L TBMX</div><div>TBMX IB MISS L TBMX</div><div>TBMX WRITE PULSE L TBMX</div><div>TBMX SDMS CNL 3 H TBMX</div><div>USCB ABORT CYCLE N TBMX.N</div></div><div><div>SIGNAL NAMEPAGE NUMBER(S)</div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> |   |   |   |   |   |   |   |



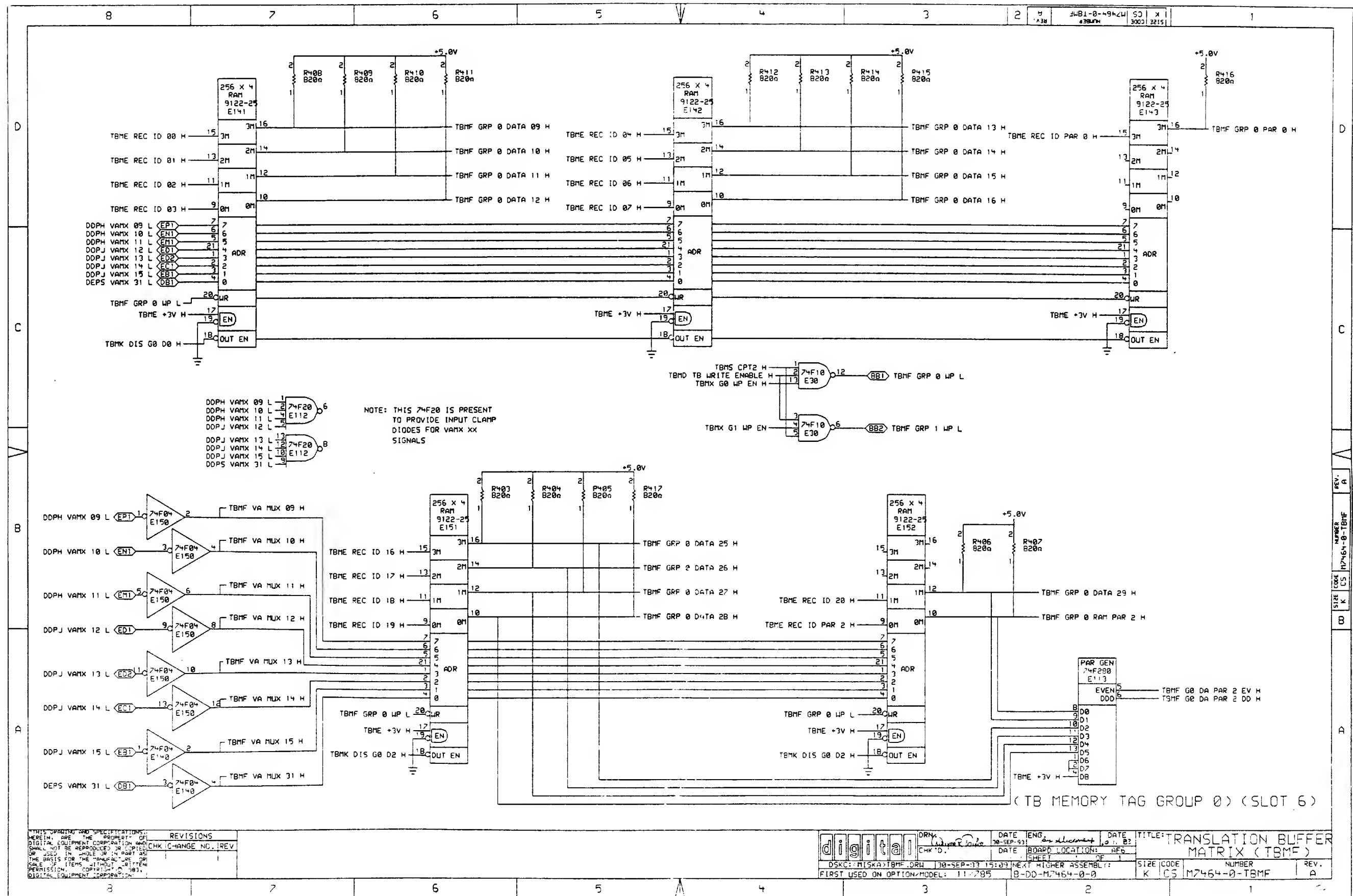




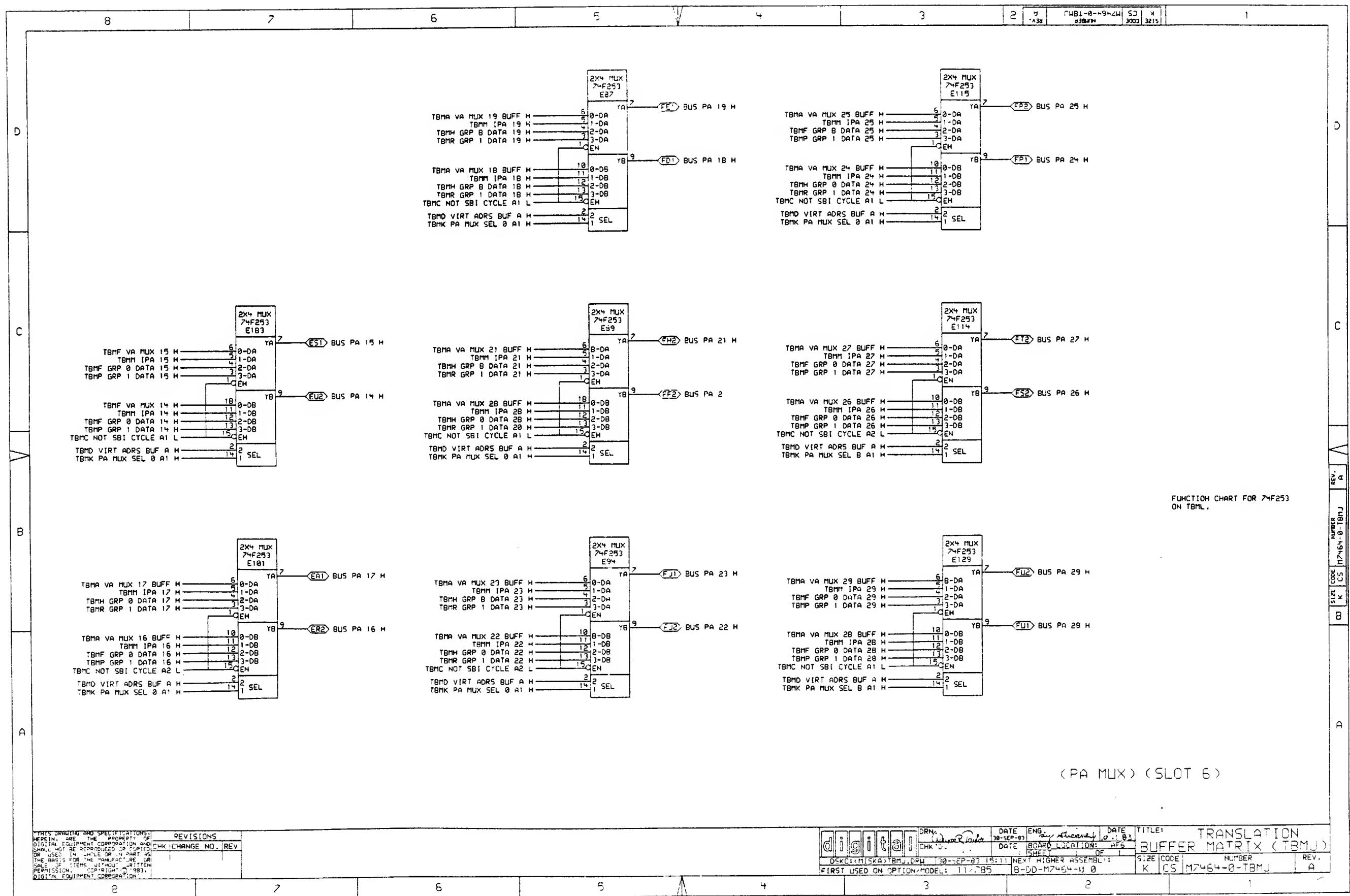


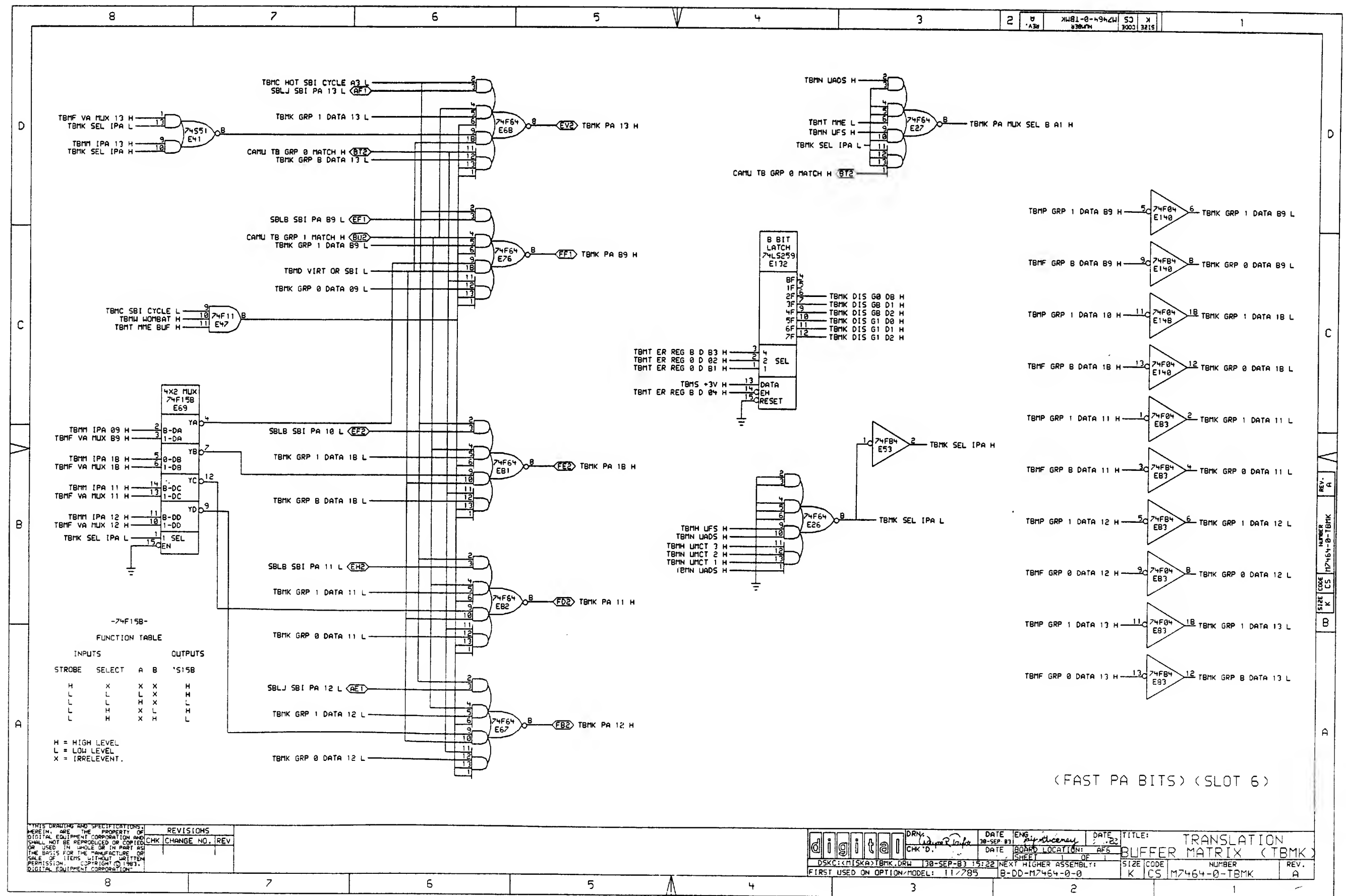


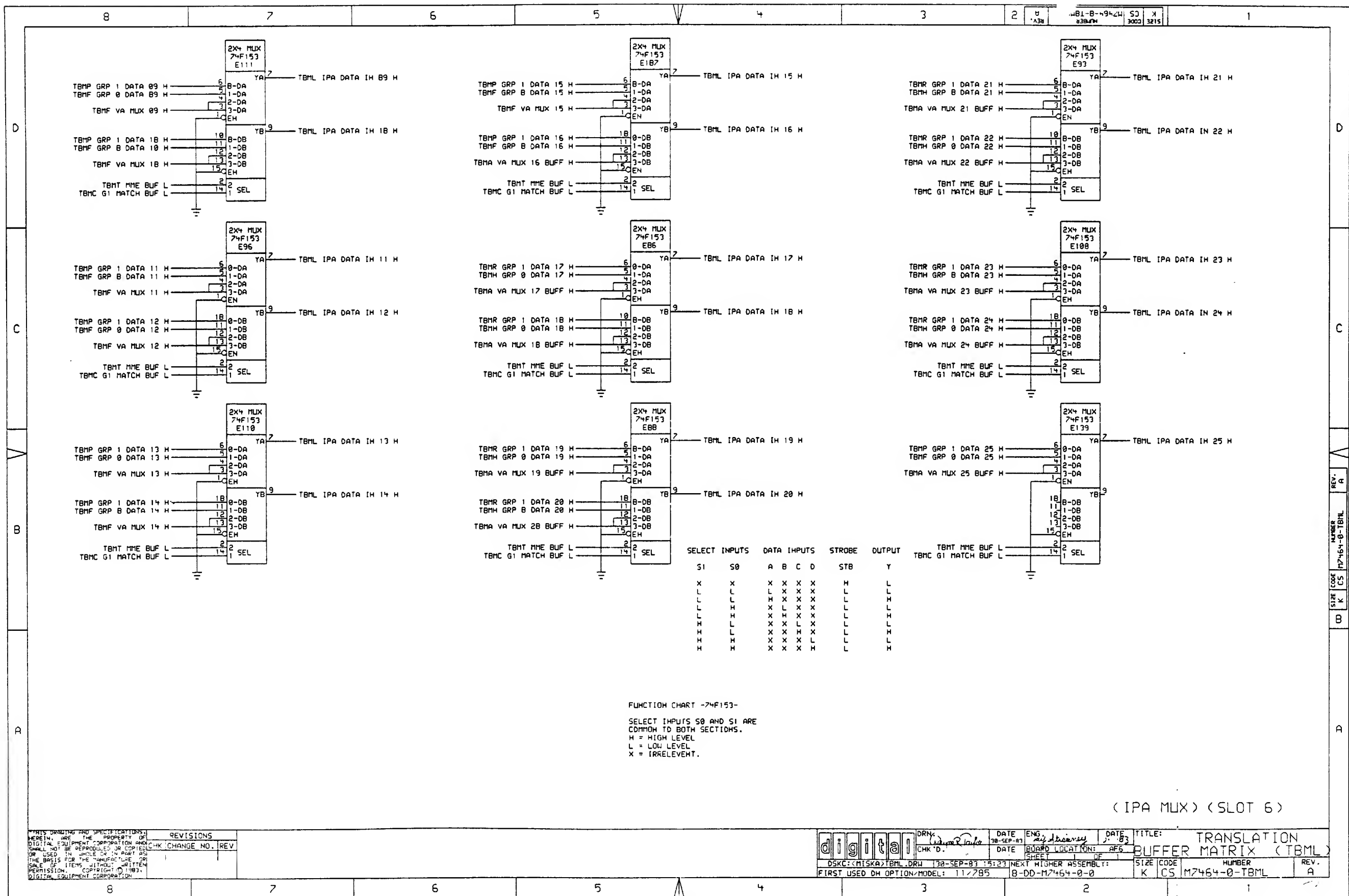












(IPA MUX) (SLOT 6)

87654321

THIS DRAWING AND SPECIFICATIONS  
HEREIN, ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN ANY MANNER OR FOR ANY  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983  
DIGITAL EQUIPMENT CORPORATION

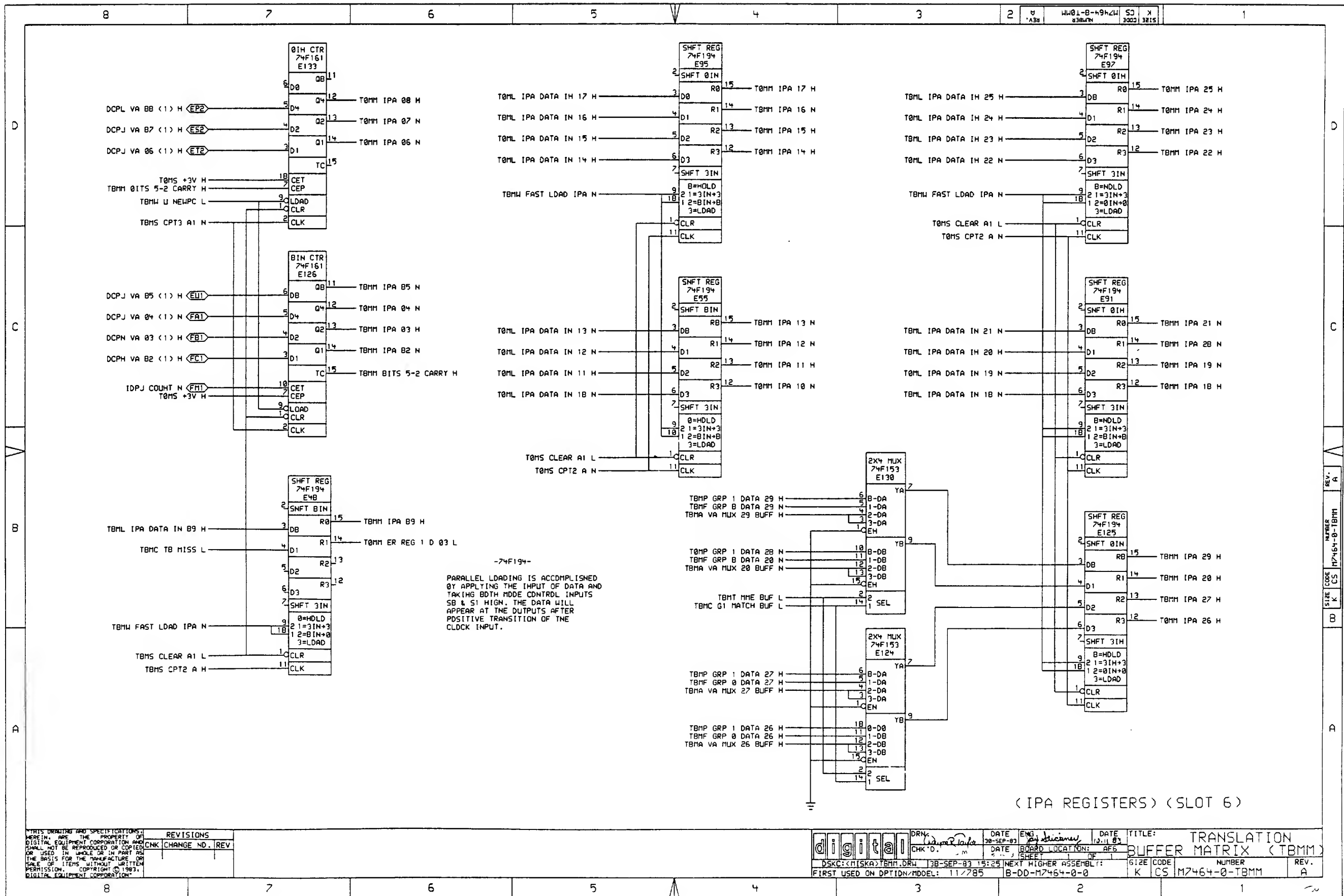
REVISIONS  
CHK CHANGE NO. REV

digital DRN: 130-SEP-83 DATE: 130-SEP-83  
CHK'D: DATE: 130-SEP-83  
DSCC: (MISKA) TBML.DRW 130-SEP-83 15:23 NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0  
FIRST USED ON OPTION/MODEL: 11/285

DATE: 130-SEP-83 ENG: 130-SEP-83  
DATE: 130-SEP-83  
DATE: 130-SEP-83  
DATE: 130-SEP-83

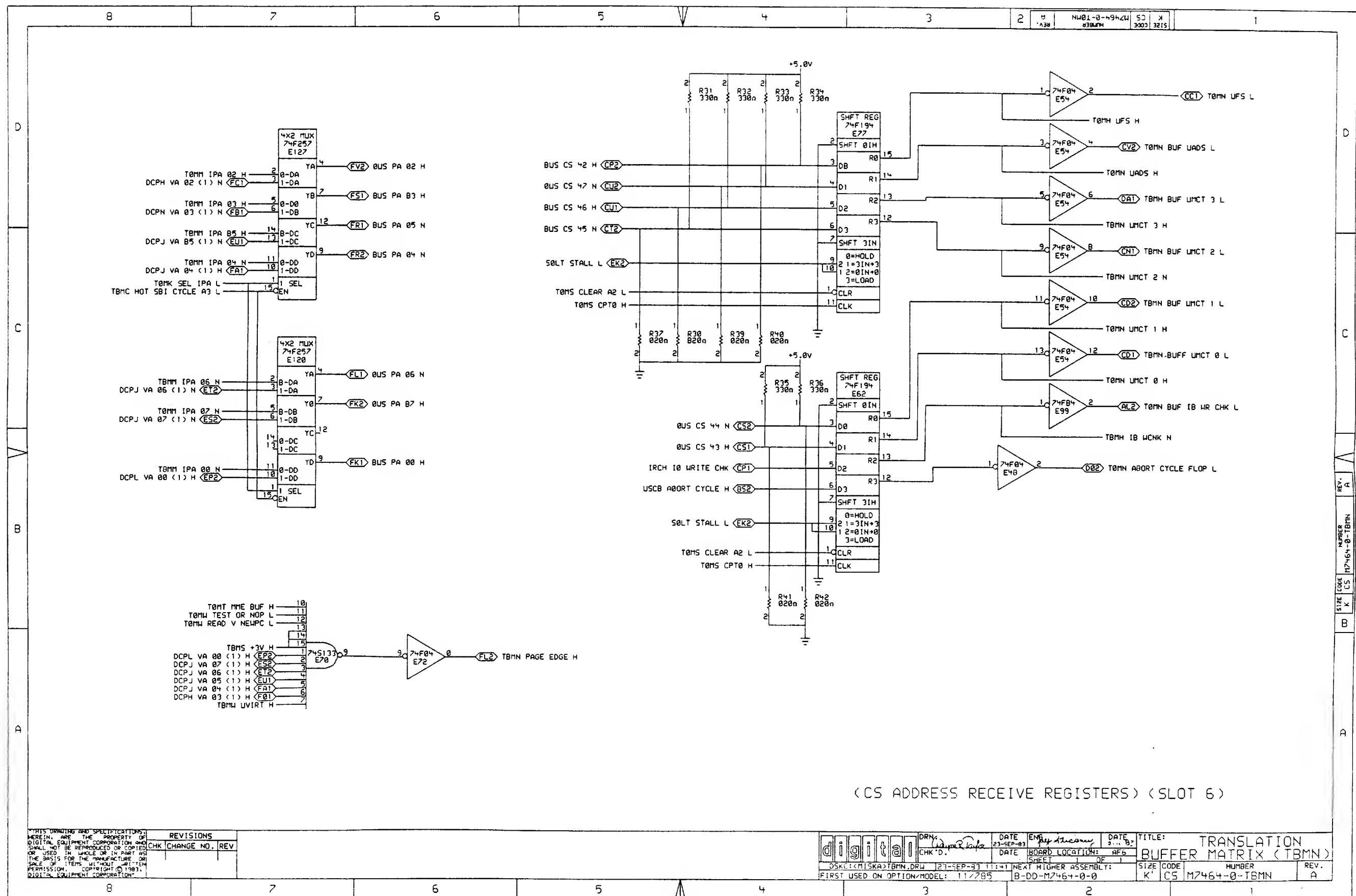
TITLE: TRANSLATION  
BUFFER MATRIX (TBML)

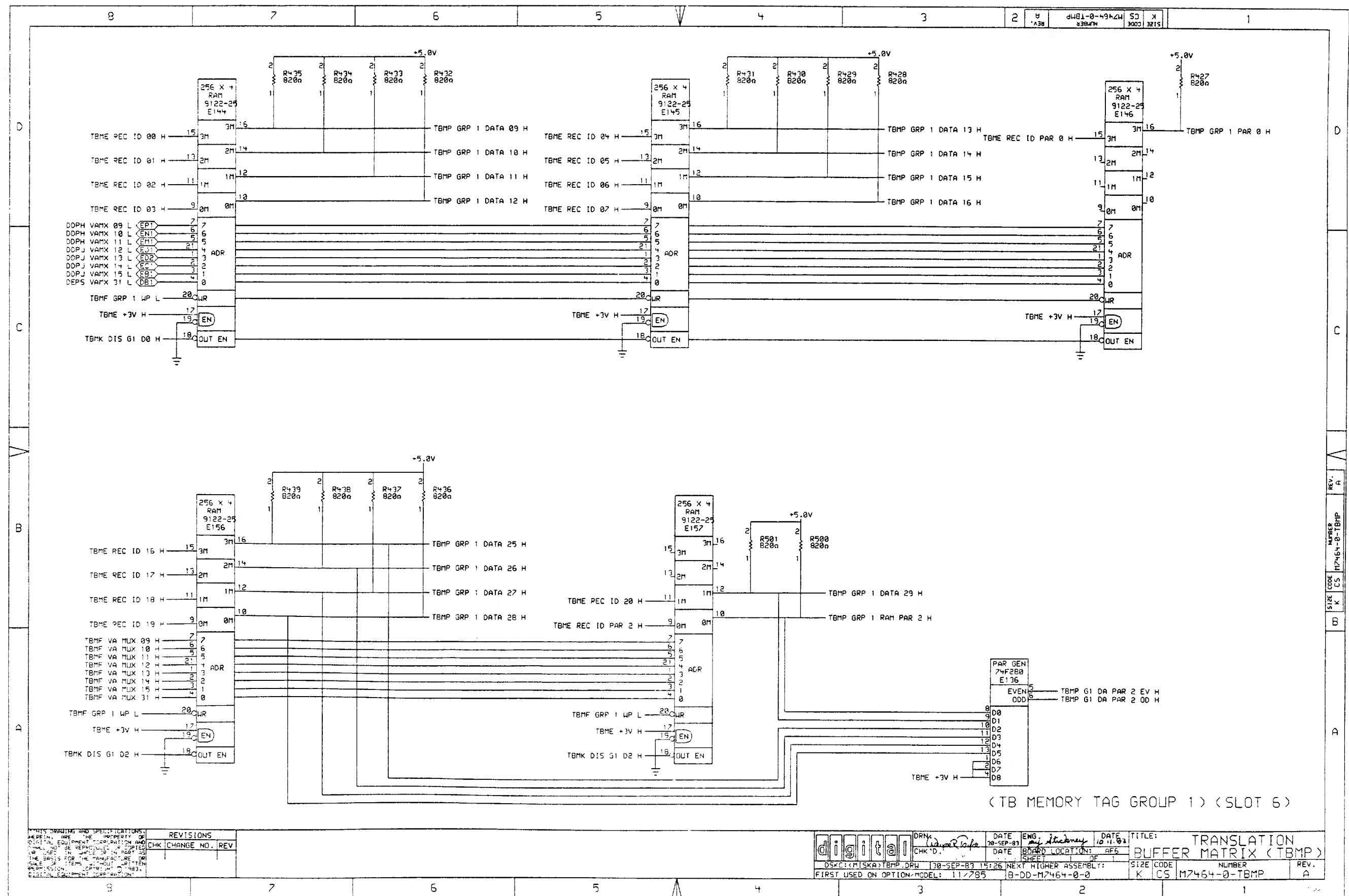
SIZE CODE NUMBER REV.  
K CS M7464-0-TBML A



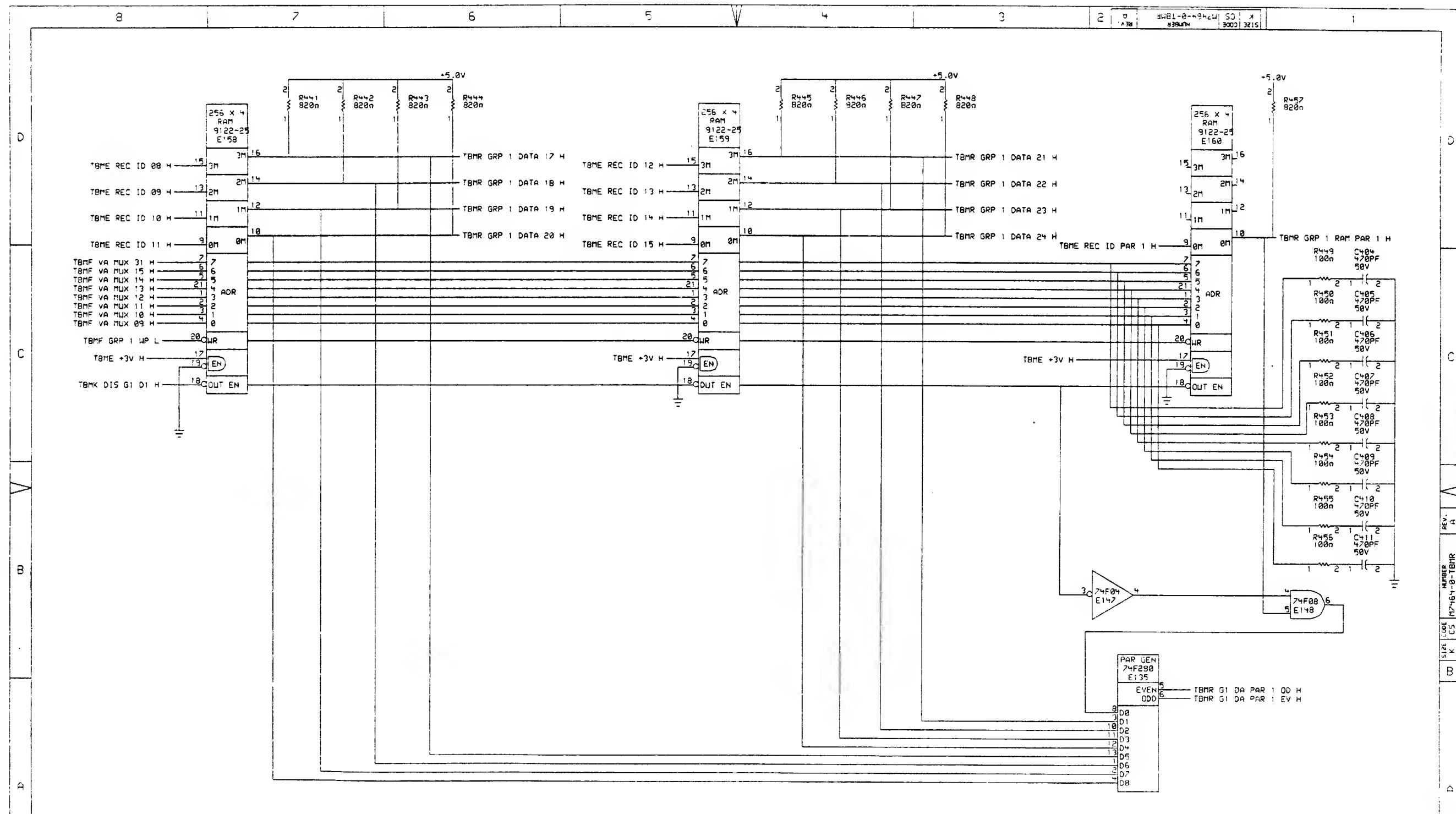
| REVISIONS |                |
|-----------|----------------|
| CHG       | CHANGE NO. REV |
|           |                |
|           |                |

|                                    |                          |                 |                                      |                 |   |
|------------------------------------|--------------------------|-----------------|--------------------------------------|-----------------|---|
| digital                            | DRN: <i>John J. J...</i> | DATE: 30-SEP-83 | ENG: <i>John J. J...</i>             | DATE: 10-11-83  | TITLE: TRANSLATION BUFFER MATRIX (TBMM) |
| CHK'D: <i>m</i>                    | DATE: 30-SEP-83          | 15:25           | NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0 | SIZE CODE: K CS | NUMBER: M7464-0-TBMM                    |
| FIRST USED ON OPTION/MODEL: 11/285 | REV: A                   |                 |                                      |                 |   |



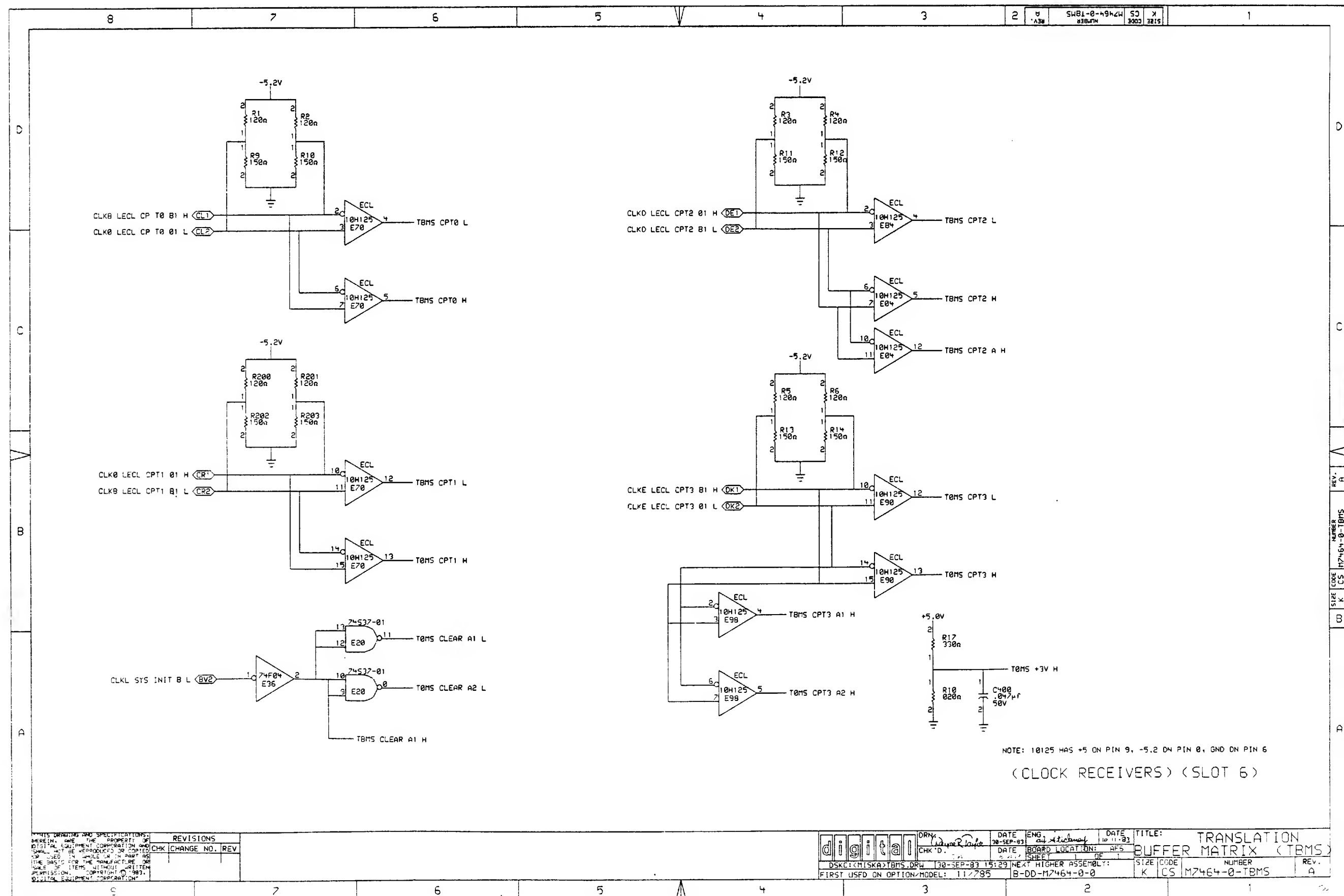






(TB MEMORY TAG GROUP 1) (SLOT 5)

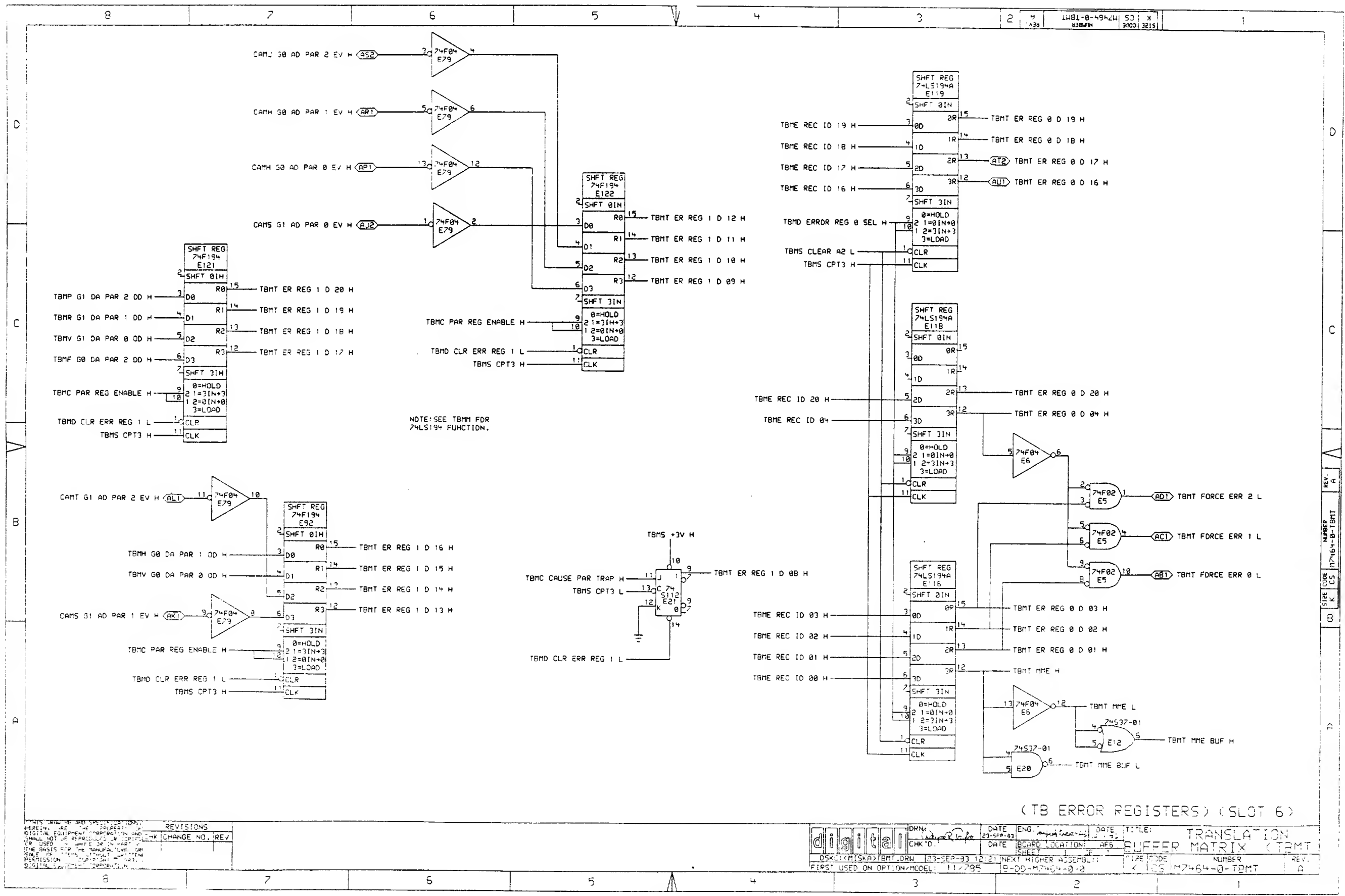
|   |   |                                 |   |  |   |  |   |   |                        |
|---|---|---------------------------------|---|--|---|--|---|---|------------------------|
| THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN ANY MANNER OR IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION. |   | REVISIONS<br>CHK CHANGE NO. REV |   | digital<br>DSKC: (MISKA) TBMR.DRW 30-SEP-83 15:28 NEXT HIGHER ASSEMBLY: B-DD-M2464-0-0<br>FIRST USED ON OPTION/MODEL: 11/285 |   | DATE ENG: 30-SEP-83<br>DATE BOARD LOCATION: AFS<br>DATE: 30-SEP-83 15:28 |   | TITLE: TRANSLATION BUFFER MATRIX (TBMR) |                        |
| 2   | 7 | 6                               | 5 | 4  | 3 | 2  | 1 | SIZE CODE<br>K CS                       | NUMBER<br>M2464-0-TBMR |
|   |   |                                 |   |  |   |  |   | REV. A                                  | REV. A                 |



THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN ANY MANNER OR USED IN ANY MANNER OR FOR ANY PURPOSES WITHOUT THE WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |                |
|-----------|----------------|
| CHK       | CHANGE NO. REV |

|                             |                 |                       |          |                      |              |
|-----------------------------|-----------------|-----------------------|----------|----------------------|--------------|
| digital                     | DATE            | ENG                   | DATE     | TITLE                |              |
|                             | 30-SEP-83       | at                    | 10-11-83 | TRANSLATION          |              |
| CHK                         | DATE            | BOARD LOCATION        | REV      | BUFFER MATRIX (TBMS) |              |
| DSKC:KMSKA>TBMS.DRW         | 30-SEP-83 15:23 | NEXT HIGHER ASSEMBLY: | SIZE     | CODE                 | NUMBER       |
| FIRST USED ON OPTION/MODEL: | 11/785          | B-DD-M7464-0-0        | K        | CS                   | M7464-0-TBMS |
|                             |                 |                       |          |                      | REV. A       |



(TB ERROR REGISTERS) (SLOT 6)

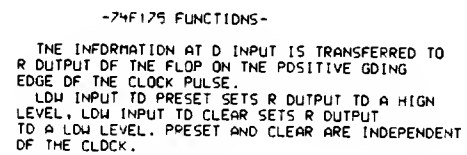
| REVISIONS |      |
|-----------|------|
| NO.       | REV. |
| 1         | 1    |

|                                    |                 |                     |                   |                    |
|------------------------------------|-----------------|---------------------|-------------------|--------------------|
| digital                            | DATE: 23-SEP-93 | ENG: [Signature]    | DATE: [Signature] | TITLE: TRANSLATION |
| DSK: C:\MISKAT\TBM.T.DRW           | DATE: 23-SEP-93 | BOARD LOCATION: AF5 | NUMBER: 11/295    | NUMBER: 11/295     |
| FIRST USED ON OPTION/MODEL: 11/295 | DATE: 23-SEP-93 | BOARD LOCATION: AF5 | NUMBER: 11/295    | NUMBER: 11/295     |









|  |                |
|--|----------------|
| THIS DRAWING AND SPECIFICATIONS<br>HEREIN, ARE THE PROPERTY OF<br>THE BUREAU OF REVENUE AND<br>CUSTOMS, U.S. DEPARTMENT OF<br>TREASURY. IT IS TO BE USED<br>ONLY FOR THE PURPOSES<br>FOR WHICH IT WAS ISSUED.<br>NO PART OF THIS DRAWING<br>OR SPECIFICATIONS IS TO BE<br>REPRODUCED OR TRANSMITTED<br>IN ANY FORM OR BY ANY<br>MEANS, ELECTRONIC OR<br>MECHANICAL, INCLUDING<br>PHOTOCOPYING, RECORDING,<br>OR BY ANY INFORMATION<br>STORAGE AND RETRIEVAL<br>SYSTEM, WITHOUT PERMISSION<br>IN WRITING FROM THE<br>DIRECTOR, BUREAU OF<br>REVENUE AND CUSTOMS,<br>U.S. DEPARTMENT OF<br>TREASURY. | REVISIONS      |
|  | CHANGE NO. REV |

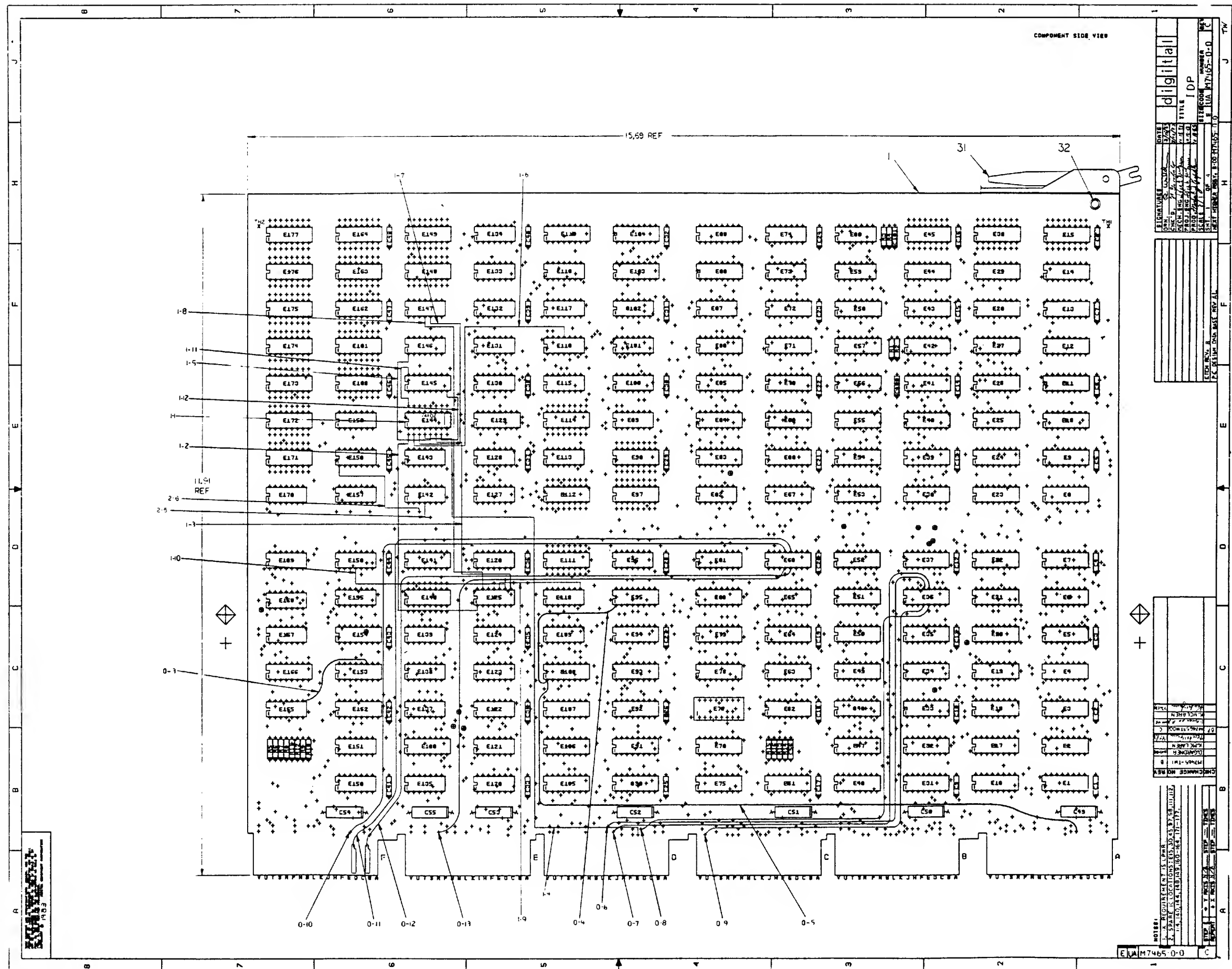


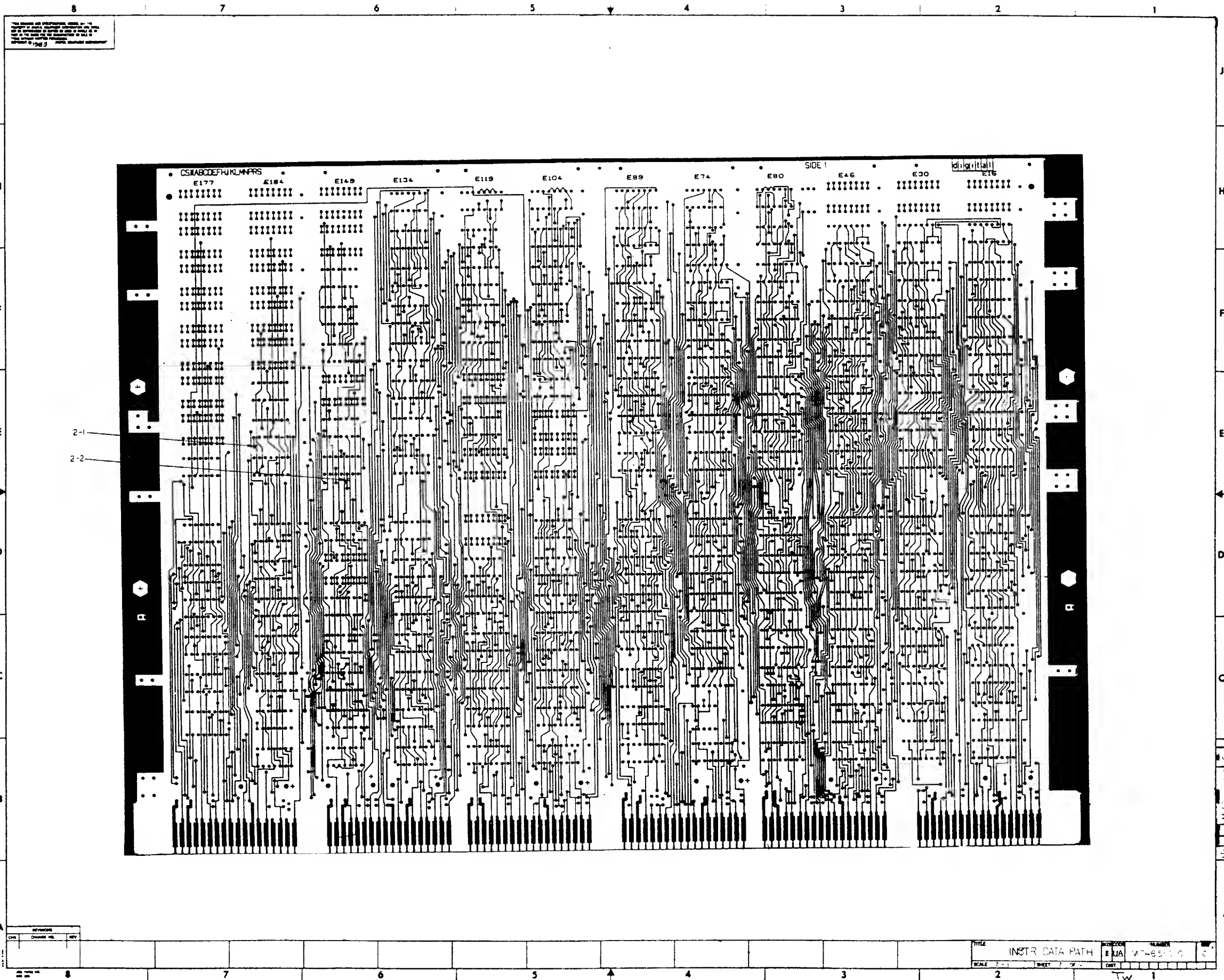




[illegible]













| LINE | ITEM | DOCUMENT | NUMBER |
|------|------|----------|--------|
|------|------|----------|--------|

PART NUMBER

DESCRIPTION

QTY PER VARIATION  
00

REFERENCE DESIGNATOR

|    |    |                  |            |       |        |                       |       |    |
|----|----|------------------|------------|-------|--------|-----------------------|-------|----|
| 1  | 1  | E-MD-5012565-0-0 | 5012565-00 | M8223 | IDP    |                       | 1     |    |
| 2  | 2  |                  | 1012784-00 | .047  | MFD    | 50V +80-20%           | CER   | 51 |
| 3  | 3  |                  | 1012084-01 | 8     | MFD    | 25V +75-10%           | AL EL | 7  |
| 4  | 4  |                  | 1301972-00 | 270.0 |        | .25 W 5.0 %           | CF    | 2  |
| 5  | 5  |                  | 1301890-00 | 560.0 |        | .25 W 5.0 %           | CF    | 2  |
| 6  | 6  |                  | 1300247-00 | 120.0 |        | .25 W 5.0 %           | CF    | 2  |
| 7  | 7  |                  | 1300250-00 | 150.0 |        | .25 W 5.0 %           | CF    | 2  |
| 8  | 8  |                  | 1300295-00 | 330.0 |        | .25 W 5.0 %           | CF    | 4  |
| 9  | 9  |                  | 1301775-00 | 820.0 |        | .25 W 5.0 %           | CF    | 4  |
| 10 | 10 |                  | 1921305-01 |       | 74F00  | NAND GATE,QUAD,2-IN   |       | 7  |
| 11 | 11 |                  | 1921307-01 |       | 74F04  | HEX INVERTER          |       | 7  |
| 12 | 12 |                  | 1921308-01 |       | 74F08  | AND GATE,QUAD,2-IN    |       | 4  |
| 13 | 13 |                  | 1921309-01 |       | 74F10  | NAND GATE,TRIPLE,3-I  |       | 6  |
| 14 | 14 |                  | 1921310-01 |       | 74F11  | AND GATE,TRIPLE,3-IN  |       | 6  |
| 15 | 15 |                  | 1921311-01 |       | 74F20  | NAND GATE,DUAL,4-IN   |       | 2  |
| 16 | 16 |                  | 1910541-00 |       | 74S40  | BUFFER,POS-NAND,DUAL  |       | 3  |
| 17 | 17 |                  | 1911712-00 |       | 74S51  | AND-OR GATE-INVERT D  |       | 7  |
| 18 | 18 |                  | 1921313-01 |       | 74F64  | AND OR INVERT GATE,4- |       | 8  |
| 19 | 19 |                  | 1921314-01 |       | 74F74  | FF-D,DUAL,POS.,EDGE   |       | 2  |
| 20 | 20 |                  | 1921319-01 |       | 74F153 | MUX,DUAL,4-IN         |       | 37 |
| 21 | 21 |                  | 1921321-01 |       | 74F158 | MUX,QUAD,2-IN         |       | 2  |
| 22 | 22 |                  | 1921320-01 |       | 74F157 | MUX,QUAD,2-IN         |       | 22 |

| REVISION HISTORY |            |     | BASIC PART NO: M7465    |  | DRN: J. FERGUSON   |  | DATE: 04-FEB-83   |  | D I G I T A L                  |      |             |     |
|------------------|------------|-----|-------------------------|--|--|--|---|--|--------------------------------|------|-------------|-----|
| ENG              | ECO NUMBER | REV | SECTION A OF A          |  | CHK'D: T. MCCULLOUGH   |  | DATE: 04-FEB-83   |  | TITLE                          |      | PARTS LIST  |     |
| ---              | INITIAL    | A   | SECTION VARIATION INDEX |  | DES. ENG: K. MCLAREN   |  | DATE: 16-AUG-83   |  | INSTRUCTION DATA PATH (I.D.P.) |      |             |     |
|                  |            |     | (A) 00                  |  | RESP. ENG.: K. MCLAREN   |  | DATE: 16-AUG-83   |  | DOCUMENT NUMBER                |      |             |     |
|                  |            |     | (B)                     |  | MFG. ENG.: M. KRYSAK   |  | DATE: 16-AUG-83   |  | SIZE                           | CODE | NUMBER      | REV |
|                  |            |     | (C)                     |  | ASSEMBLY NUMBER:   |  | TOP DOCUMENT NUMBER:                                    |  | K                              | PL   | M7465-0-D8P | A   |
|                  |            |     | (D)                     |  | E-UA-M7465-0-0 <th colspan="2">B-DD-M7465-0-0</th> <td colspan="2">FILE NAME:</td> <td colspan="2">EDIT #</td> |  | B-DD-M7465-0-0  |  | FILE NAME:                     |      | EDIT #      |     |
|                  |            |     | (E)                     |  |  |  | <td colspan="2">Z3951A.PLS</td> <td colspan="2">14</td> |  | Z3951A.PLS                     |      | 14          |     |
|                  |            |     | (F)                     |  |  |  | <td colspan="2"></td> <td colspan="2"></td>             |  |                                |      |             |     |
|                  |            |     | (G)                     |  |  |  | <td colspan="2"></td> <td colspan="2"></td>             |  |                                |      |             |     |
|                  |            |     | (H)                     |  |  |  | <td colspan="2"></td> <td colspan="2"></td>             |  |                                |      |             |     |
|                  |            |     | (I)                     |  |  |  | <td colspan="2"></td> <td colspan="2"></td>             |  |                                |      |             |     |
|                  |            |     | (J)                     |  |  |  | <td colspan="2"></td> <td colspan="2"></td>             |  |                                |      |             |     |
|                  |            |     | (K)                     |  |  |  | <td colspan="2"></td> <td colspan="2"></td>             |  |                                |      |             |     |
|                  |            |     | (L)                     |  |  |  | <td colspan="2"></td> <td colspan="2"></td>             |  |                                |      |             |     |
|                  |            |     | (M)                     |  |  |  | <td colspan="2"></td> <td colspan="2"></td>             |  |                                |      |             |     |
|                  |            |     | (N)                     |  |  |  | <td colspan="2"></td> <td colspan="2"></td>             |  |                                |      |             |     |

THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

COPYRIGHT (C) 1983. DIGITAL EQUIPMENT CORPORATION



AUTOMATED BY PRTLST.4Q(50)

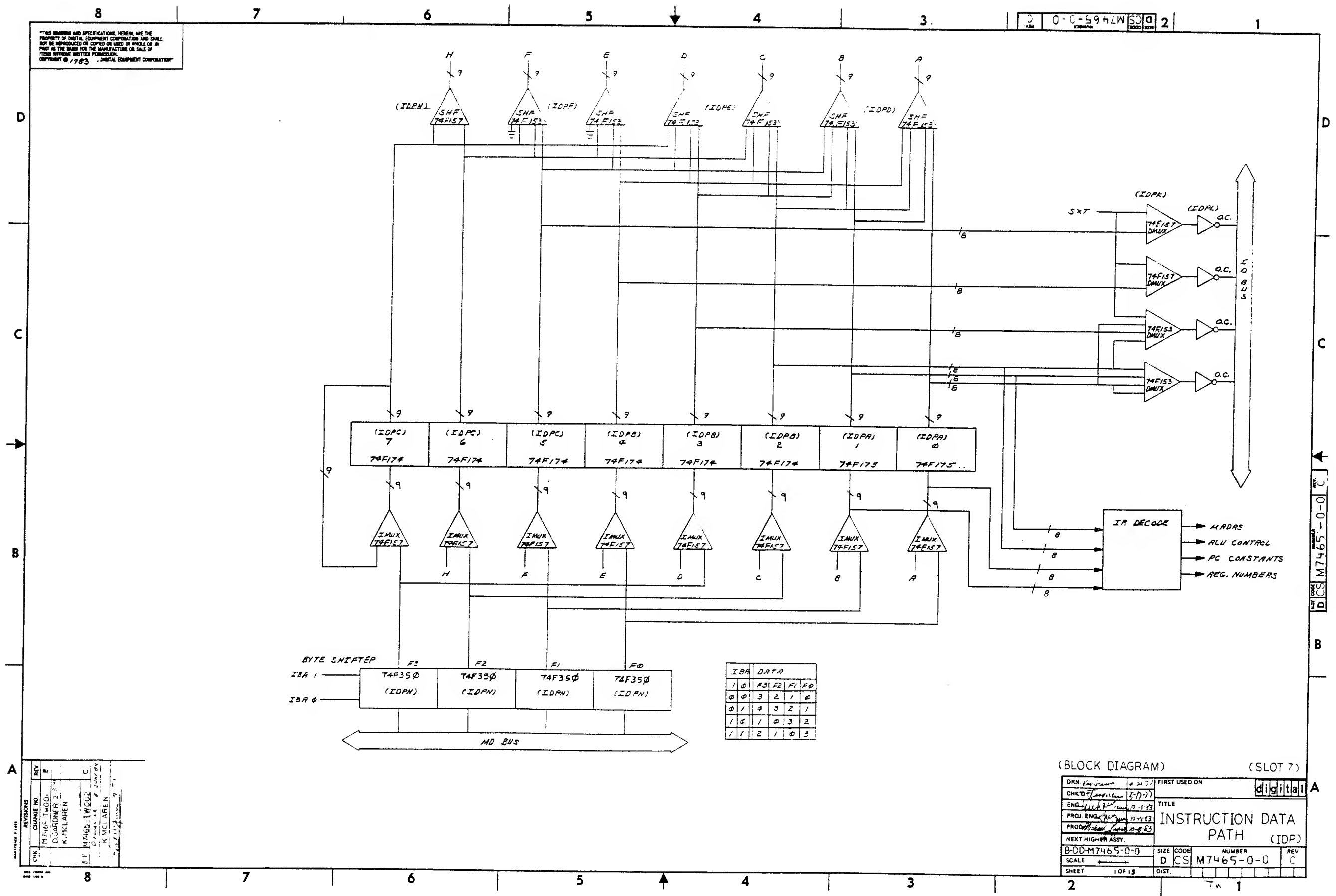
PARTS LIST

SHEET A2 OF A2

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION                      | QTY PER VARIATION<br>00 | REFERENCE DESIGNATOR            |
|------|------|-----------------|-------------|----------------------------------|-------------------------|---------------------------------|
| 23   | 23   |                 | 1910545-00  | 74S112 FF-JK DUAL,EDGE TRIG      | 1                       | CONT E64,E65,E68,E69,E84        |
| 24   | 24   |                 | 1913788-00  | 26S10 TRANSCEIVER,BUS,QUA        | 8                       | E166                            |
| 25   | 25   |                 | 1921334-01  | 74F350 SHIFTER,4-BIT             | 8                       | E1,E16,E31,E46,E61,E75,E76,E105 |
| 26   | 26   |                 | 1921720-01  | 10H125 TRANSLATOR ECL TO TTL QUA | 1                       | E2,E3,E18,E19,E33,E34,E48,E49   |
| 27   | 27   |                 | 1921323-01  | 74F174 FF-D,HEX                  | 8                       | E77                             |
| 28   | 28   |                 | 1921324-01  | 74F175 FF-D,QUAD                 | 7                       | E22,E35,E38,E39,E41,E50,E53,E83 |
| 29   | 29   |                 | 1913839-00  | LS165 SHIFT REG.,8BIT            | 6                       | E36,E66,E67,E80,E129,E136,E145  |
| 30   | 30   |                 | 1921327-01  | 74F194 SHIFT REG,UNIV.BIDIR      | 1                       | E93,E94,E141,E152-E154          |
| 31   | 31   |                 | 1216988-02  | HANDLE,MODULE,HEX TWO EJECTORS   | 1                       | E90                             |
| 32   | 32   |                 | 9000024-01  | EYELET,ROLLED 0.1210DX0.192      | 12                      |                                 |
| 33   | 33   |                 | 9105740-55  | WIRE(WRAP) 30AWG KYNAR UL14      | A/R                     |                                 |

34 NOTE: 1. SPARE IC'S E15,E30,E45,E97,E98,E111,E112,E114  
35 NOTE: E140,E144,E148,E149,E160-E164,E171-E177

|   |   |   |   |   |   |   |                                |                |      |      |                 |     |
|---|---|---|---|---|---|---|--------------------------------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE                          | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   | INSTRUCTION DATA PATH (I.D.P.) |                | K    | PL   | M7465-0-DBP     | A   |



| REV | CHG | NO. | REV |
|-----|-----|-----|-----|
| 1   | 1   | 1   | 1   |
| 2   | 2   | 2   | 2   |
| 3   | 3   | 3   | 3   |
| 4   | 4   | 4   | 4   |
| 5   | 5   | 5   | 5   |
| 6   | 6   | 6   | 6   |
| 7   | 7   | 7   | 7   |
| 8   | 8   | 8   | 8   |
| 9   | 9   | 9   | 9   |
| 10  | 10  | 10  | 10  |

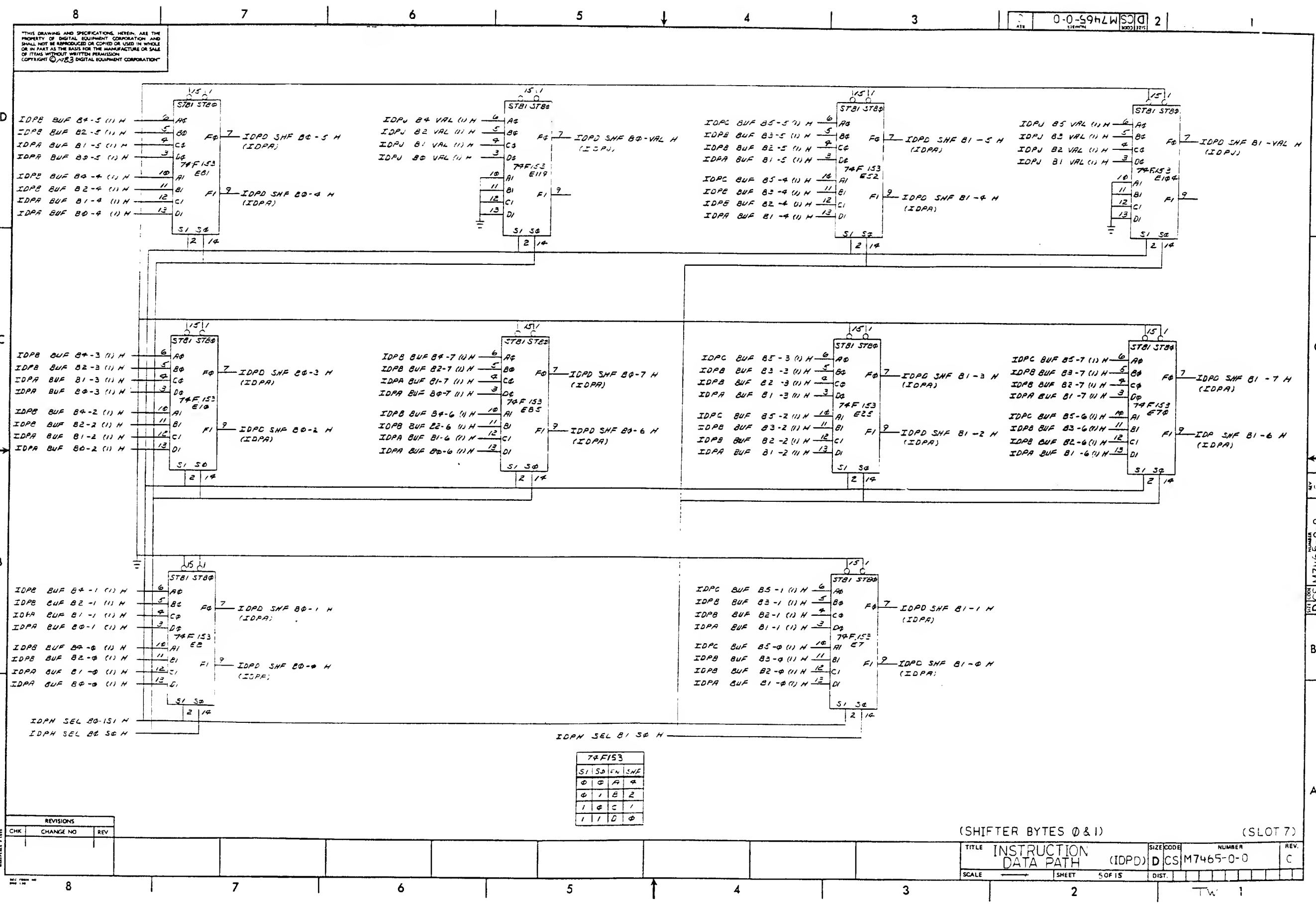
(BLOCK DIAGRAM) (SLOT 7)

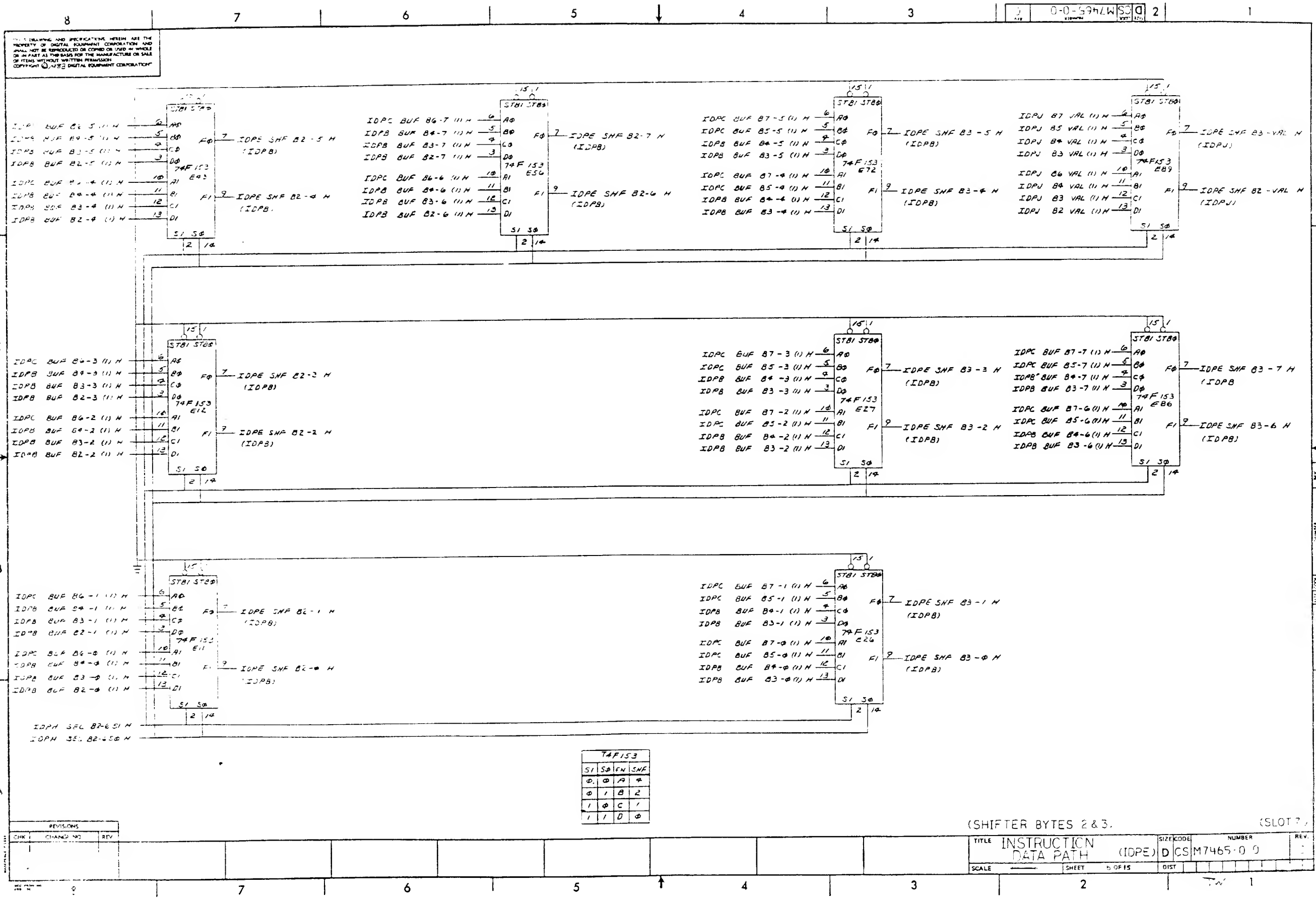
|                   |          |               |                             |
|-------------------|----------|---------------|-----------------------------|
| DRN. for          | 5-17-77  | FIRST USED ON | digital                     |
| CHK'D             | 5-17-77  | TITLE         | INSTRUCTION DATA PATH (IDP) |
| ENG. 1            | 5-17-77  | PROJ. ENG.    | 10-15-83                    |
| PROJ. ENG.        | 10-15-83 | PROOF         | 10-15-83                    |
| NEXT HIGHER ASSY. |          |               |                             |
| BDD-M7465-0-0     | SIZE     | CODE          | NUMBER                      |
| SCALE             | 1 OF 15  | DIST.         | REV                         |
| SHEET             |          |               |                             |











THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1972 DIGITAL EQUIPMENT CORPORATION

0-0-5942W SD 2

(SHIFTER BYTES 2 & 3. (SLOT 7.)

| TITLE                        | SIZE/CODE | NUMBER      | REV. |
|------------------------------|-----------|-------------|------|
| INSTRUCTION DATA PATH (IDPE) | D         | CSM7465-0-0 | 1    |

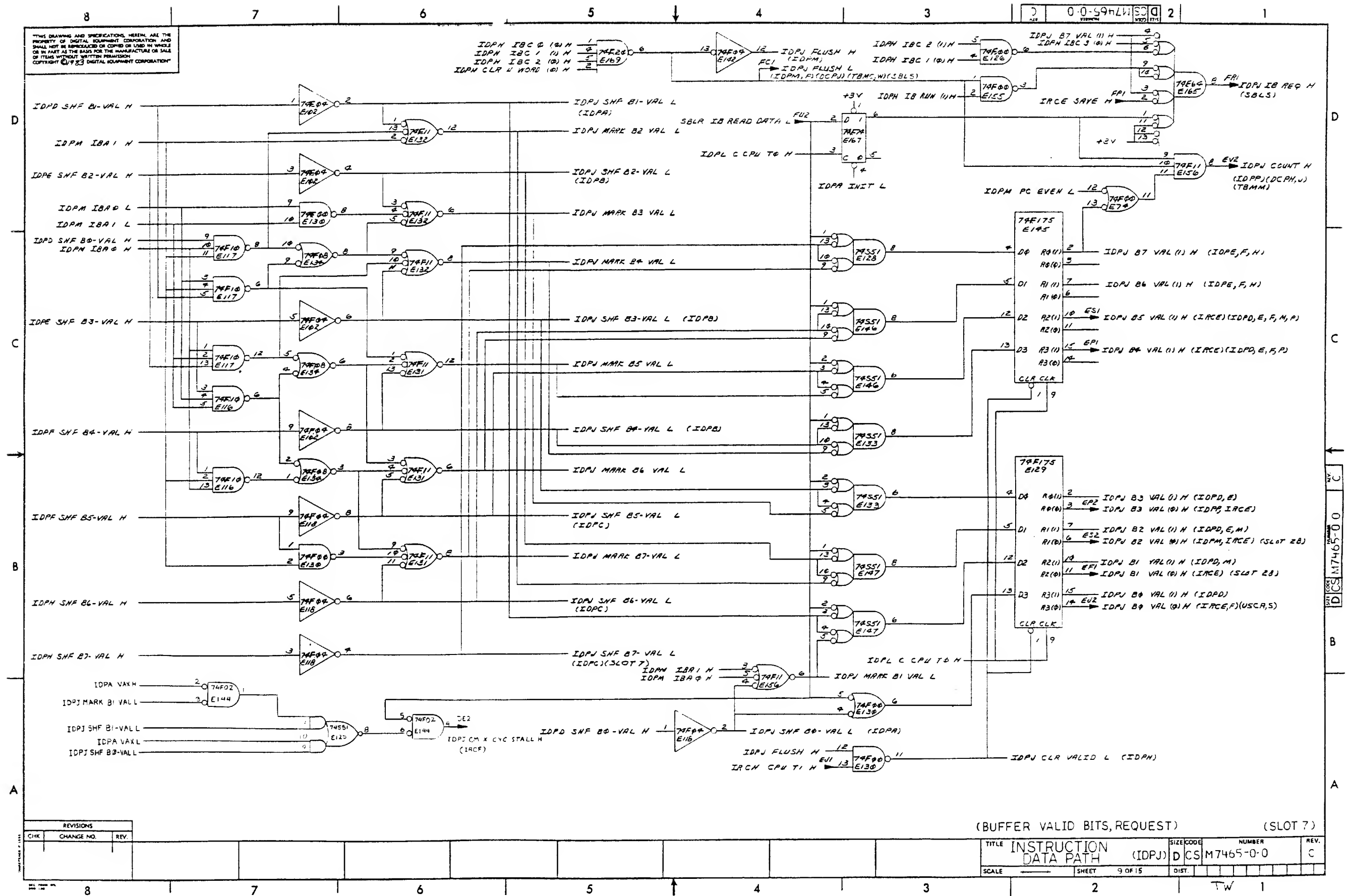
SCALE: SHEET 5 OF 15 DIST: 1

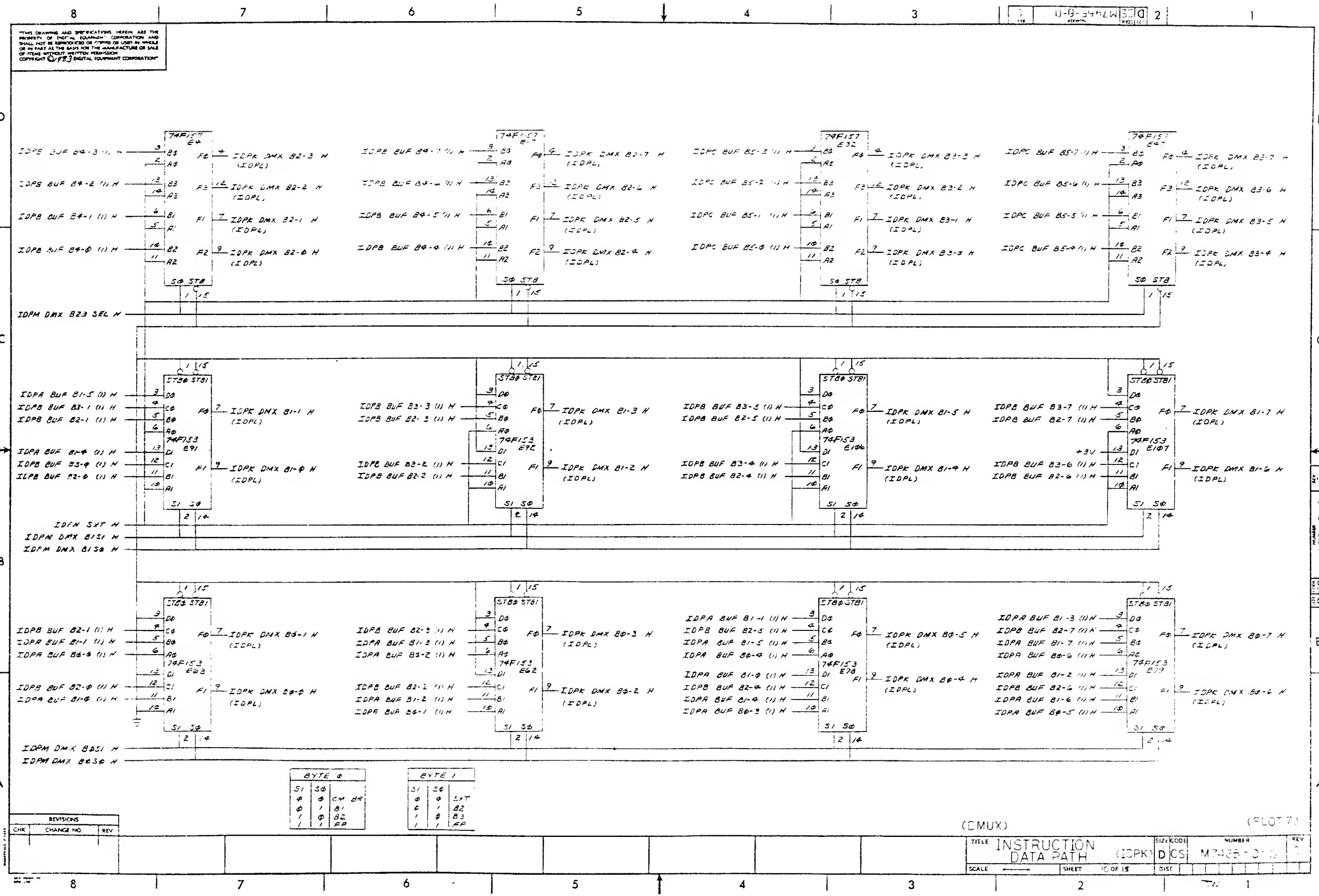
|        |    |    |     |
|--------|----|----|-----|
| TAF153 |    |    |     |
| SI     | SO | IN | SHF |
| 0      | 1  | A  | *   |
| 0      | 1  | B  | 2   |
| 1      | 0  | C  | 1   |
| 1      | 1  | D  | 0   |











THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.

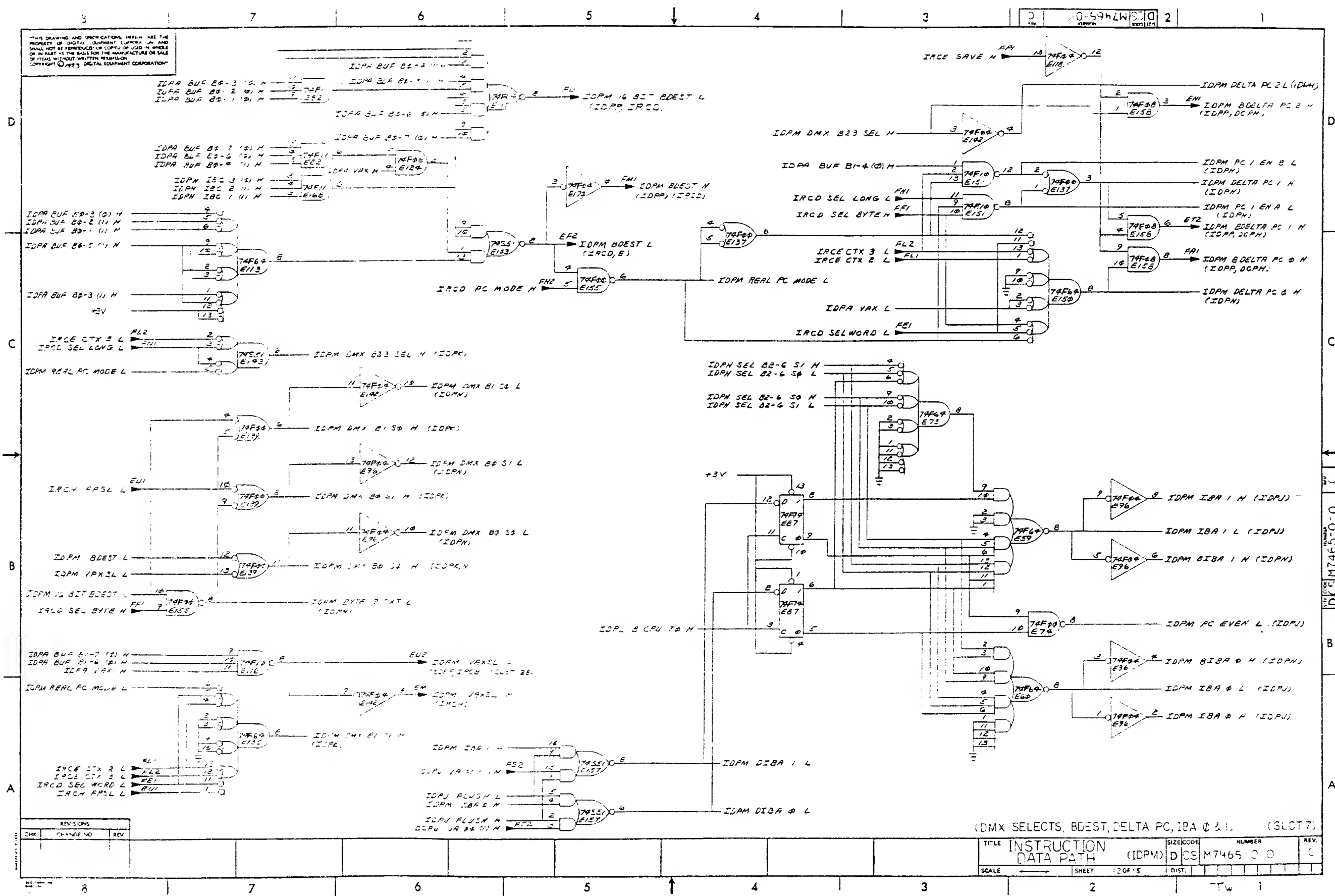
| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |
|           |            |     |

| BYTE 0 |    |    |    |
|--------|----|----|----|
| S1     | S0 | CM | DR |
| 0      | 1  | B1 | B2 |
| 1      | 0  | B2 | B3 |
| 1      | 1  | ED |    |

| BYTE 1 |    |     |  |
|--------|----|-----|--|
| S1     | S0 | SXT |  |
| 0      | 1  | B2  |  |
| 1      | 0  | B3  |  |
| 1      | 1  | ED  |  |

| TITLE                        |       | SIZE     | CODE | NUMBER    |   | REV |
|------------------------------|-------|----------|------|-----------|---|-----|
| INSTRUCTION DATA PATH (IDPK) |       | D        | CS   | M7485-010 | 1 |     |
| SCALE                        | SHEET | 10 OF 15 | DIST |           |   |     |





THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION.

| REV | CHG | NO | REV |
|-----|-----|----|-----|
|     |     |    |     |

|       |  |                              |  |           |  |        |  |      |  |
|-------|--|------------------------------|--|-----------|--|--------|--|------|--|
| TITLE |  | INSTRUCTION DATA PATH (IDPM) |  | SIZE/CODE |  | NUMBER |  | REV. |  |
| SCALE |  | SHEET 12 OF 15               |  | DIST.     |  |        |  |      |  |



THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION

D

C

B

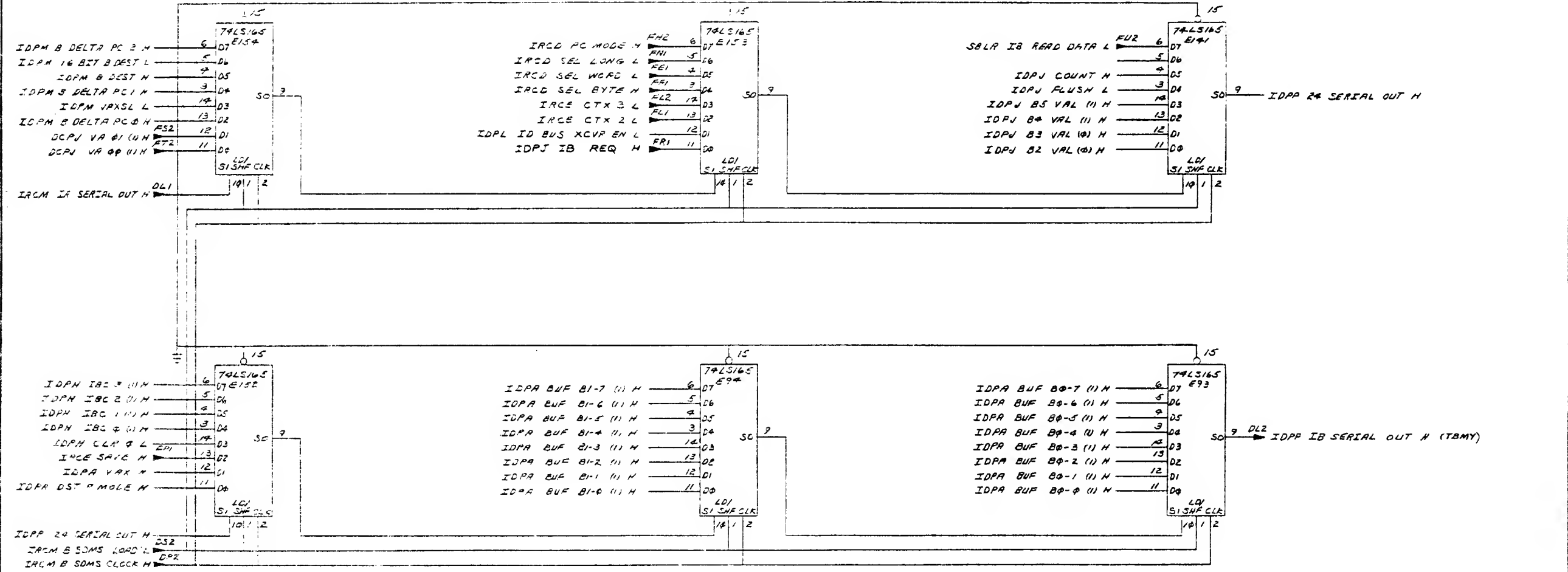
A

D

C

B

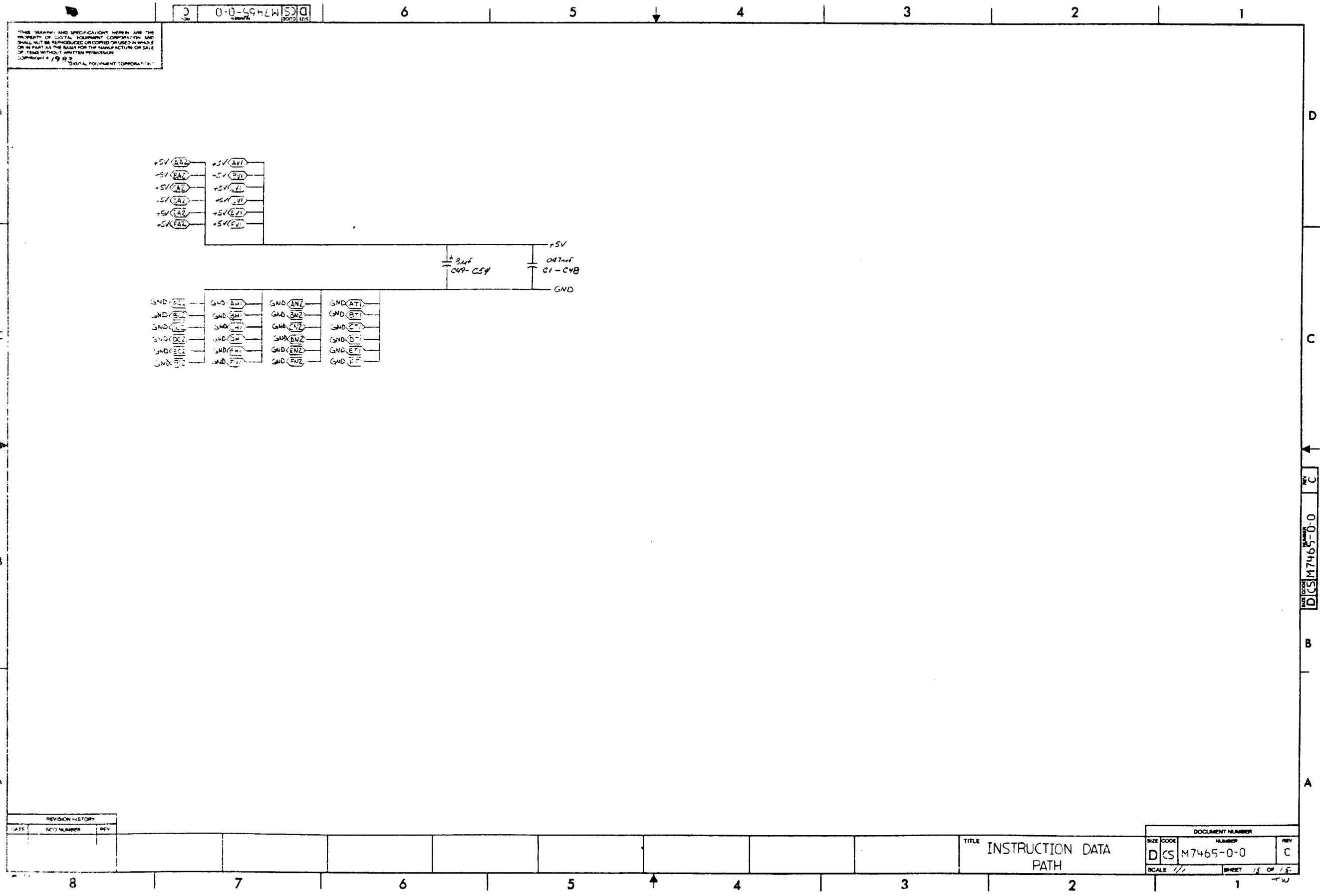
A



| REVISIONS |           |     |
|-----------|-----------|-----|
| CHK       | CHANGE NO | REV |
|           |           |     |

(V-BUS) (SLOT 7)

|       |                              |           |          |        |           |     |   |
|-------|------------------------------|-----------|----------|--------|-----------|-----|---|
| TITLE | INSTRUCTION DATA PATH (IDPP) | SIZE/CODE | DCS      | NUMBER | M7465-0-0 | REV | C |
| SCALE | 1:1                          | SHEET     | 14 OF 15 | DIST   |           |     |   |



| REVISION HISTORY |            |     |
|------------------|------------|-----|
| DATE             | ECO NUMBER | REV |
|                  |            |     |

TITLE INSTRUCTION DATA PATH

| DOCUMENT NUMBER |      |           |
|-----------------|------|-----------|
| SIZE            | CODE | NUMBER    |
| D               | CS   | M7465-0-0 |
| SCALE           |      | REV       |
| 1/1             |      | C         |
| SHEET           |      | 15 OF 15  |

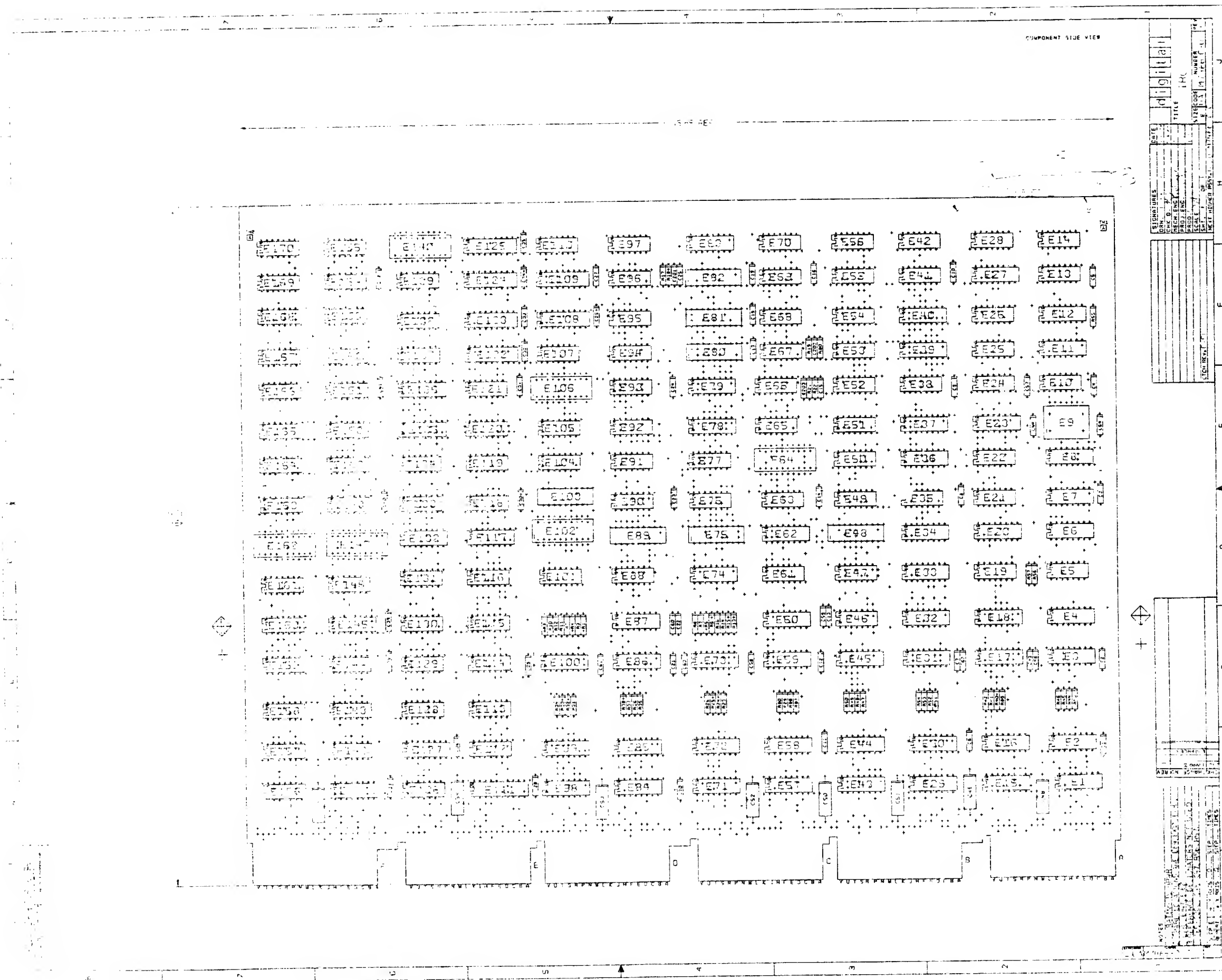




| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                      | QTY | PER VARIATION | REFERENCE DESIGNATOR            |
|------|------|------------------|-------------|---------|----------------------------------|-----|---------------|---------------------------------|
|      |      |                  |             |         | VARIATION REVISION LEVEL:        | 00  |               |                                 |
|      |      |                  |             |         |                                  | A1  |               |                                 |
| 1    | 1    | D-MD-5016073-0-0 | 5016073-01  |         | DATA PATH (31:16)                | 1   |               |                                 |
| 2    | 2    |                  | 1017472-00  |         | 10 MFD 35V +50-10% AL EL         | 8   |               | C48-C55                         |
| 3    | 3    |                  | 1012784-00  |         | .047 MFD 50V +80-20% CER         | 56  |               | C1-C44,C56-C64,C201-C203        |
| 4    | 4    |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF             | 8   |               | R3,R4,R6,R8,R10,R12-R14         |
| 5    | 5    |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF             | 8   |               | R1,R2,R5,R7,R9,R11,R15,R16      |
| 6    | 6    |                  | 1300447-00  |         | 4.70 K .25 W 5.0 % CF            | 33  |               | R23-R55                         |
| 7    | 7    |                  | 1301890-00  |         | 560.0 .25 W 5.0 % CF             | 3   |               | R18,R20,R22                     |
| 8    | 8    |                  | 1301972-00  |         | 270.0 .25 W 5.0 % CF             | 3   |               | R17,R19,R21                     |
| 9    | 9    |                  | 1813951-00  |         | OSCILLATOR, XTAL 1.0 KHZ         | 1   |               | E9                              |
| 10   | 10   |                  | 1910545-00  |         | 74S112 FF-JK DUAL,EDGE TRIG      | 4   |               | E12,E23,E135,E136               |
| 11   | 11   |                  | 1921323-01  |         | 74F174 FF-D,HEX                  | 1   |               | E132                            |
| 12   | 12   |                  | 1921324-01  |         | 74F175 FF-D,QUAD                 | 1   |               | E117                            |
| 13   | 13   |                  | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL QUA | 2   |               | E60,E87                         |
| 14   | 14   |                  | 1911469-00  |         | DEC 8640 RECEIVER,BUS,QUAD,U     | 1   |               | E5                              |
| 15   | 15   |                  | 1911712-00  |         | 74S51 AND-OR GATE-INVERT D       | 7   |               | E21,E41,E53,E67,E95,E126,E134   |
| 16   | 16   |                  | 1911983-00  |         | 74S133 NAND GATE-POSITIVE 1      | 4   |               | E6,E20,E34,E62                  |
| 17   | 17   |                  | 1912867-00  |         | LS298 MUX 1 OF 4,2IN W/S         | 8   |               | E2,E16,E30,E44,E58,E72,E85,E99  |
| 18   | 18   |                  | 1913788-00  |         | 26S10 TRANSCEIVER,BUS,QUA        | 8   |               | E1,E15,E29,E43,E57,E71,E84,E98  |
| 19   | 19   |                  | 1913839-00  |         | LS165 SHIFT REG.,8BIT            | 2   |               | E74,E141                        |
| 20   | 20   |                  | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN        | 10  |               | E19,E26,E35,E38,E97,E112,E115,  |
|      |      |                  |             |         |                                  |     | CONT          | E119,E144,E150                  |
| 21   | 21   |                  | 1921307-01  |         | 74F04 HEX INVERTER               | 12  |               | E22,E52,E63,E68,E70,E94,E101,   |
|      |      |                  |             |         |                                  |     | CONT          | E114,E128,E138,E143,E145        |
| 22   | 22   |                  | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN         | 6   |               | E25,E46,E56,E113,E137,E142      |
| 23   | 23   |                  | 1921309-01  |         | 74F10 NAND GATE,TRIPLE,3-I       | 13  |               | E24,E28,E47,E49,E54,E88,E107,   |
|      |      |                  |             |         |                                  |     | CONT          | E118,E129,E148,E151,E155,E159   |
| 24   | 24   |                  | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN       | 6   |               | E14,E42,E50,E69,E130,E149       |
| 25   | 25   |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN        | 4   |               | E55,E139,E164,E170              |
| 26   | 26   |                  | 1921313-01  |         | 74F64 AND OR INVERT GATE,4-      | 27  |               | E65,E66,E90-E93,E104,E105,E110, |
|      |      |                  |             |         |                                  |     | CONT          | E116,E120,E121,E131,E133,       |

| REVISION HISTORY |            |     | BASIC PART NO: M7466    |    | DRN: S.MANSOR      |  | DATE: 24-SEP-83      |  | D I G I T A L            |  |  |  |
|------------------|------------|-----|-------------------------|----|--------------------|--|----------------------|--|--------------------------|--|--|--|
| ENG              | ECO NUMBER | REV | SECTION A OF A          |    | CHK'D: F.GAROFALO  |  | DATE: 24-SEP-83      |  | TITLE PARTS LIST         |  |  |  |
|                  | INITIAL    | A   | SECTION VARIATION INDEX |    |                    |  |                      |  | INSTRUCTION DECODE (IRC) |  |  |  |
|                  |            |     | [A]                     | 00 |                    |  |                      |  |                          |  |  |  |
|                  |            |     | [B]                     |    |                    |  |                      |  |                          |  |  |  |
|                  |            |     | [C]                     |    | DES.ENG: B.HALL    |  | DATE: 24-SEP-83      |  | DOCUMENT NUMBER          |  |  |  |
|                  |            |     | [D]                     |    |                    |  |                      |  | SIZE!CODE! NUMBER        |  |  |  |
|                  |            |     | [E]                     |    |                    |  |                      |  | REV                      |  |  |  |
|                  |            |     | [F]                     |    | RESP.ENG.: B.HALL  |  | DATE: 24-SEP-83      |  | K PL M7466-0-DBP         |  |  |  |
|                  |            |     | [H]                     |    |                    |  |                      |  |                          |  |  |  |
|                  |            |     | [J]                     |    |                    |  |                      |  |                          |  |  |  |
|                  |            |     | [K]                     |    | MFG.ENG.: M.KRYSAK |  | DATE: 24-SEP-83      |  | RELEASE DATE: 17-NOV-83  |  |  |  |
|                  |            |     | [L]                     |    |                    |  |                      |  |                          |  |  |  |
|                  |            |     | [M]                     |    | ASSEMBLY NUMBER:   |  | TOP DOCUMENT NUMBER: |  | FILE NAME:               |  |  |  |
|                  |            |     | [N]                     |    | E-UA-M7466-0-0     |  | B-DD-M7466-0-0       |  | Z8058A.PLS               |  |  |  |

THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS.



AUTOMATED BY PRTLST.5R(55)

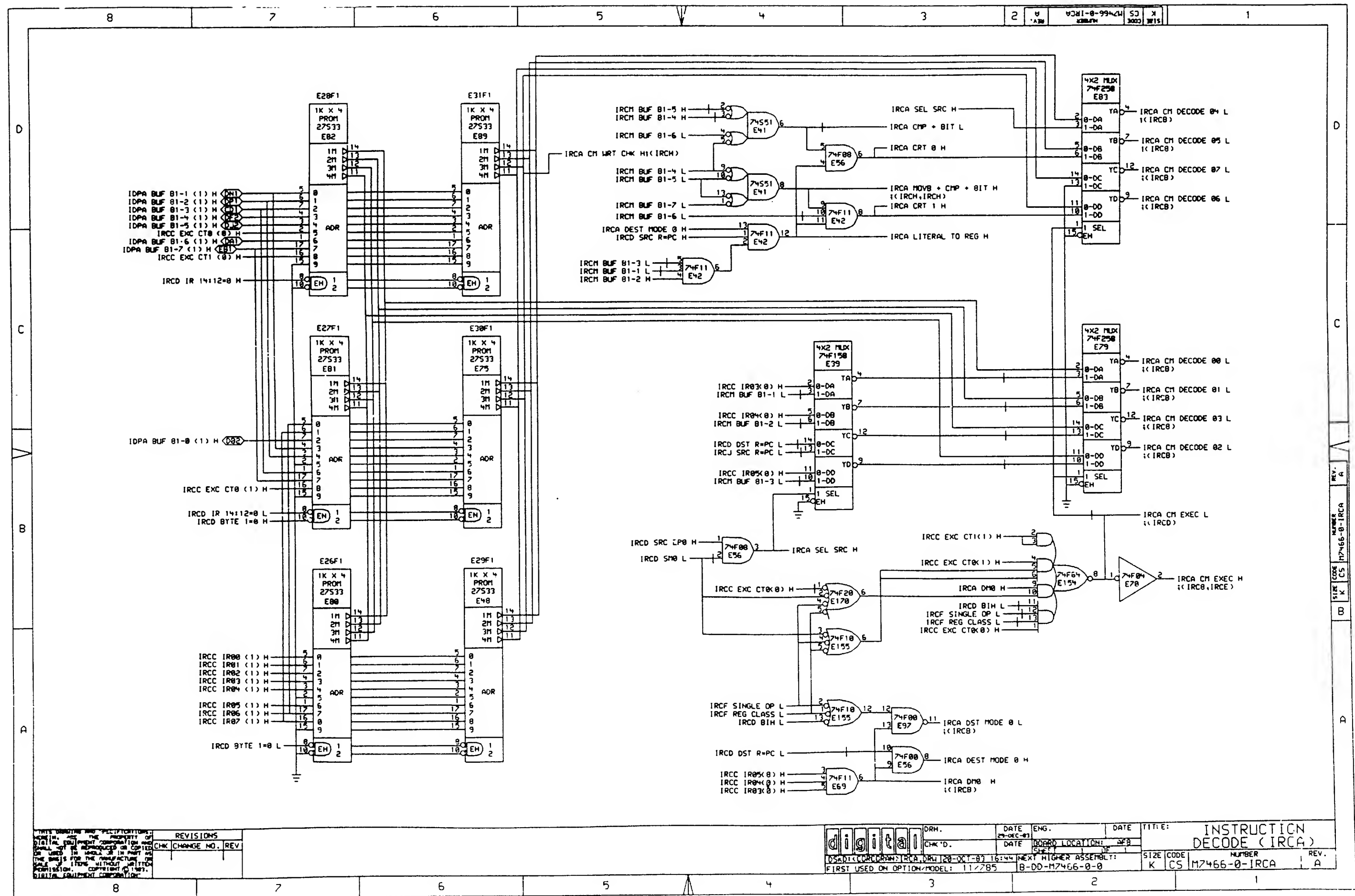
## P A R T S   L I S T

SHEET A2 OF A2

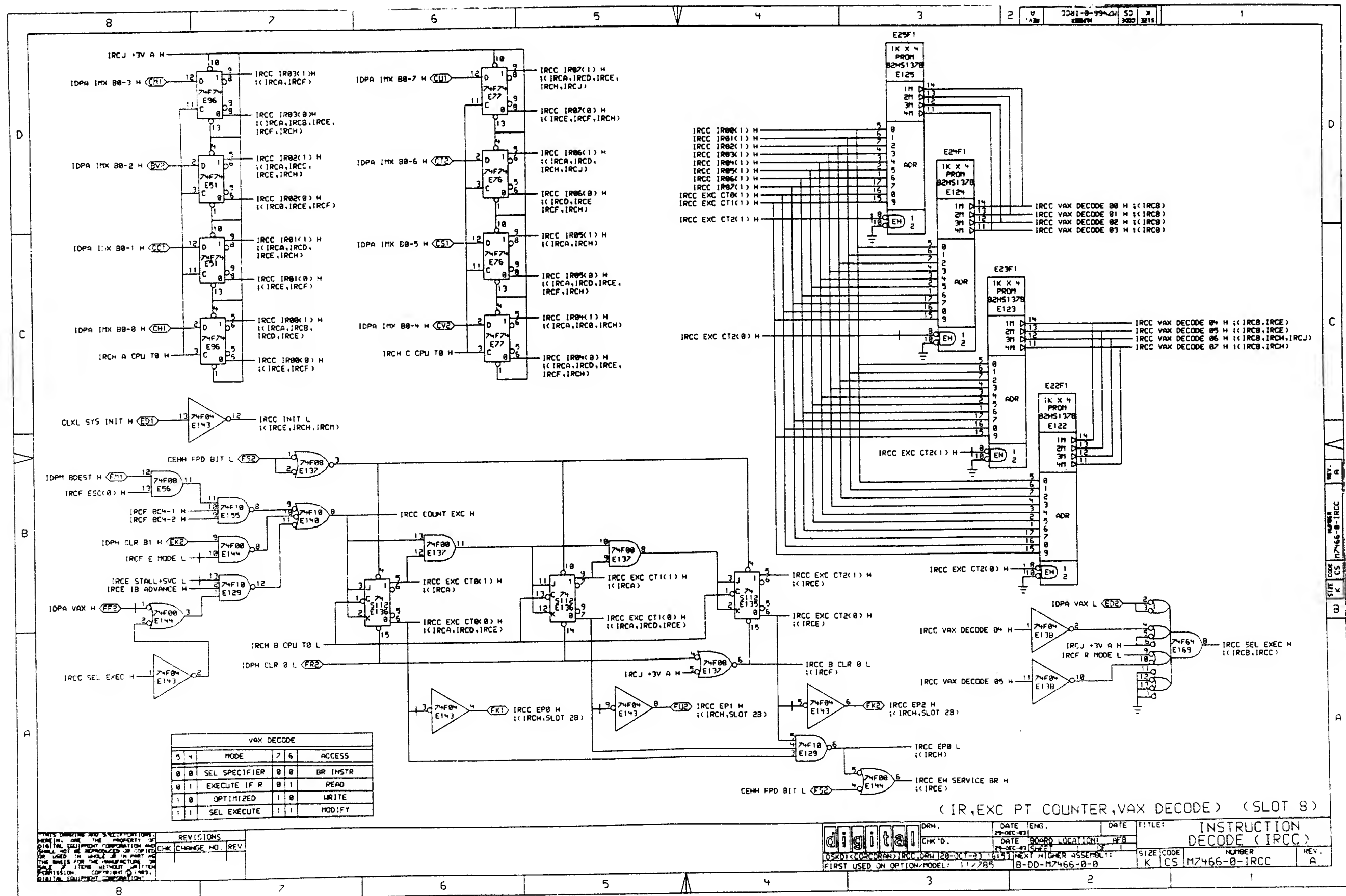
| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                    | QTY | PER VARIATION | REFERENCE DESIGNATOR            |
|------|------|--------------|-------------|---------|--------------------------------|-----|---------------|---------------------------------|
|      |      |              |             |         | VARIATION REVISION LEVEL:      | 00  |               |                                 |
|      |      |              |             |         |                                | A1  |               |                                 |
| 27   | 27   |              | 1921314-01  |         | 74F74 FF-D,DUAL,FDS.,EDGE      | 7   | CONT          | E152-E154,E156-E158,E160,E161,  |
| 28   | 28   |              | 1921318-01  |         | 74F151 MUX,8-IN                | 2   | CONT          | E163,E165,E167-E169             |
| 29   | 29   |              | 1921321-01  |         | 74F158 MUX,QUAD,2-IN           | 5   |               | E13,E51,E61,E76,E77,E96,E166    |
| 30   | 30   |              | 1921327-01  |         | 74F194 SHIFT REG,UNIV,BIDIR    | 3   |               | E8,E36                          |
| 31   | 31   |              | 1921331-01  |         | 74F258 MUX,QUAD,2-IN           | 4   |               | E18,E32,E39,E40,E78             |
| 32   | 32   |              | 1921674-01  |         | 74F352 MULTIPLEXER,DUAL 4-IN   | 2   |               | E4,E7,E33                       |
| 33   | 33   |              | 2113907-00  | MM      | 74C160 COUNTER-DECADE,ASYNC    | 1   |               | E79,E83,E127,E145               |
| 34   | 34   |              | 2113908-00  | MM      | 74C161 COUNTER,ASYNCH.BINAR    | 8   |               | E27,E37                         |
| 35   | 35   |              | 2114018-00  | MM      | 74C74 FF-D DUAL 10MHZ,CMOS     | 1   |               | E11                             |
| 36   | 36   | BLANK        |             |         | *** THIS ITEM IS NOT USED ***  | -   |               | E3,E17,E31,E45,E59,E73,E86,E100 |
| 37   | 37   |              | 23E14F1-00  | F1-04   |                                | 1   |               | E10                             |
| 38   | 38   |              | 23E29F1-00  | F1-05   |                                | 1   |               | E108                            |
| 39   | 39   | BLANK        |             |         | *** THIS ITEM IS NOT USED ***  | -   |               | E48                             |
| 40   | 40   |              | 23137J5-00  | J5-03   | PAL,LOGIC                      | 1   |               |                                 |
| 41   | 41   |              | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS | 1   |               | E111                            |
| 42   | 42   |              | 9000024-01  |         | EYELET,ROLLED 0.1210DX0.192    | 12  |               |                                 |
| 43   | 43   |              | 23E32F1-00  | F1-05   |                                | 1   |               | E103                            |
| 44   | 44   |              | 23E26F1-00  | F1-05   |                                | 1   |               | E80                             |
| 45   | 45   |              | 23E27F1-00  | F1-05   |                                | 1   |               | E81                             |
| 46   | 46   |              | 23E28F1-00  | F1-05   |                                | 1   |               | E82                             |
| 47   | 47   |              | 23E30F1-00  | F1-05   |                                | 1   |               | E75                             |
| 48   | 48   |              | 23E31F1-00  | F1-05   |                                | 1   |               | E89                             |
| 49   | 49   |              | 23E22F1-00  | F1-05   |                                | 1   |               | E122                            |
| 50   | 50   |              | 23E23F1-00  | F1-05   |                                | 1   |               | E123                            |
| 51   | 51   |              | 23E24F1-00  | F1-05   |                                | 1   |               | E124                            |
| 52   | 52   |              | 23E25F1-00  | F1-05   |                                | 1   |               | E125                            |
| 53   | 53   |              | 23E19F1-00  | F1-04   |                                | 1   |               | E109                            |
| 54   | 54   |              | 9105740-55  |         | WIRE(WRAP) 30AWG KYNAR UL14    | A/R |               |                                 |

55 NOTE: SPARE I.C. LOCATIONS ARE: E64,E106,E140,E147,E162,E102  
56 NOTE: REF. DES. NOT USED ARE: C65-C200,C45-C47,R56,R57

|               |       |                          |                |      |      |                 |     |
|---------------|-------|--------------------------|----------------|------|------|-----------------|-----|
| D I G I T A L | TITLE | INSTRUCTION DECODE (IRC) | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | RE. |
| 4             |       |                          |                | K    | PL   | M7466-0-DBP     | A   |





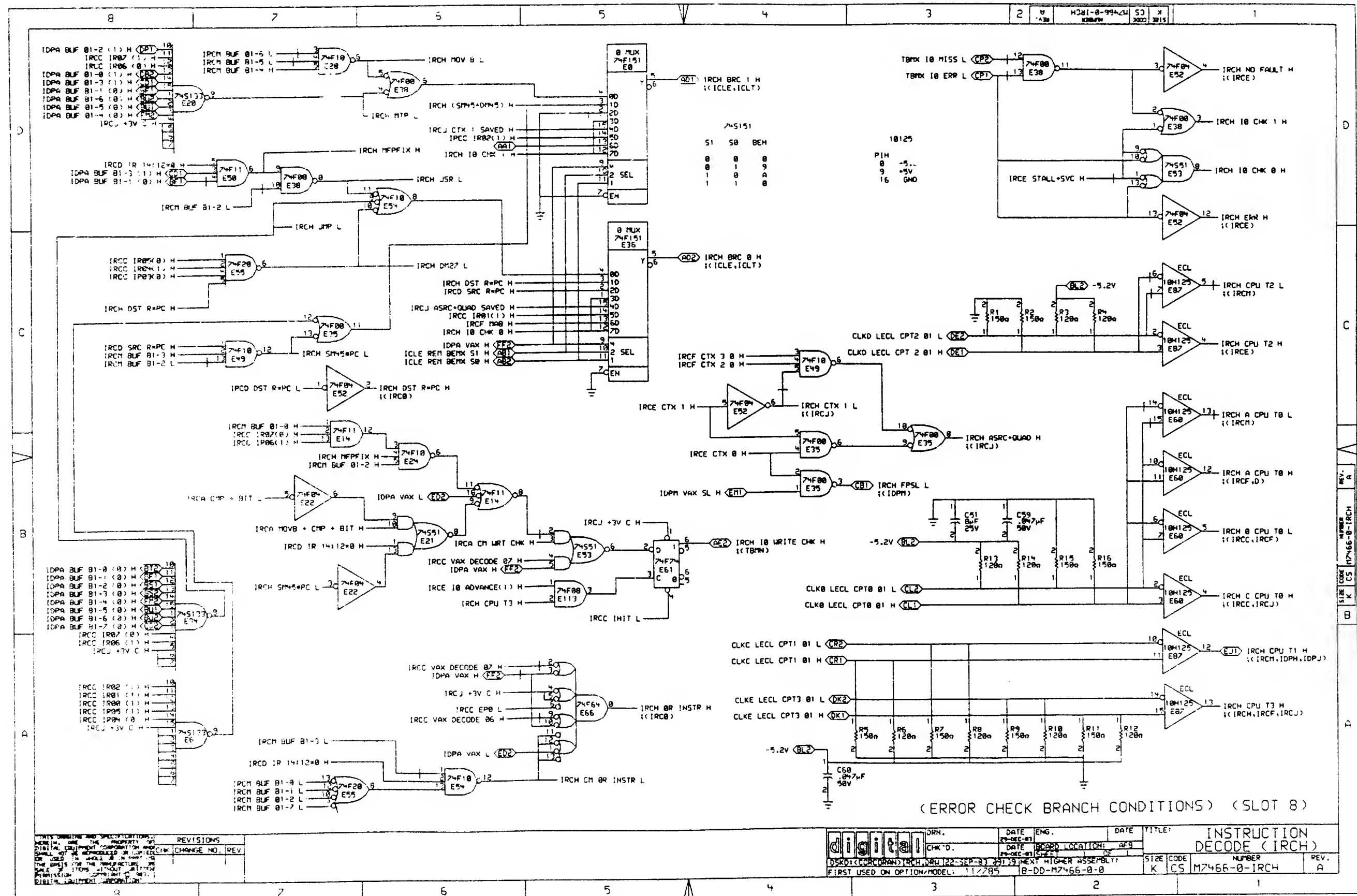






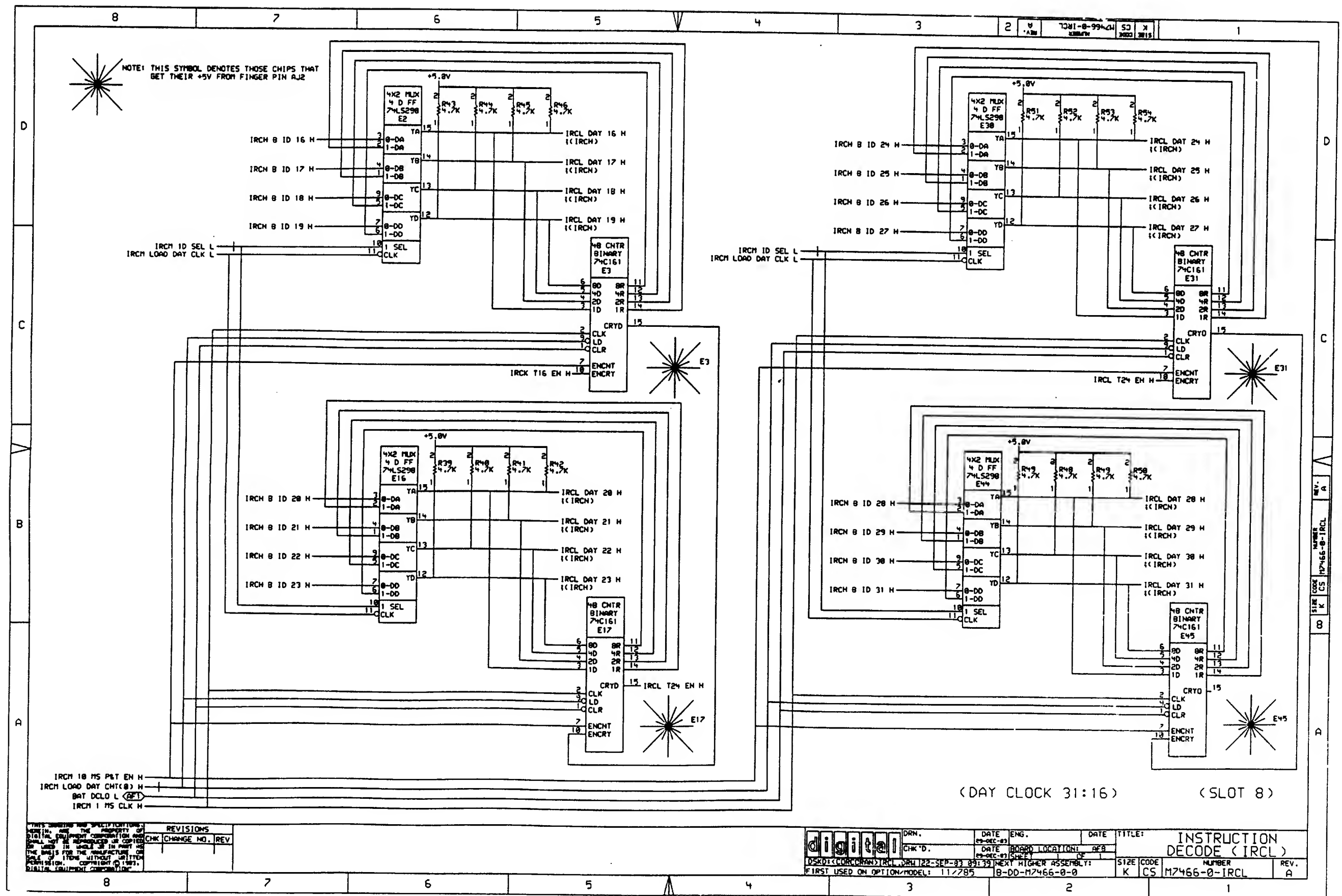








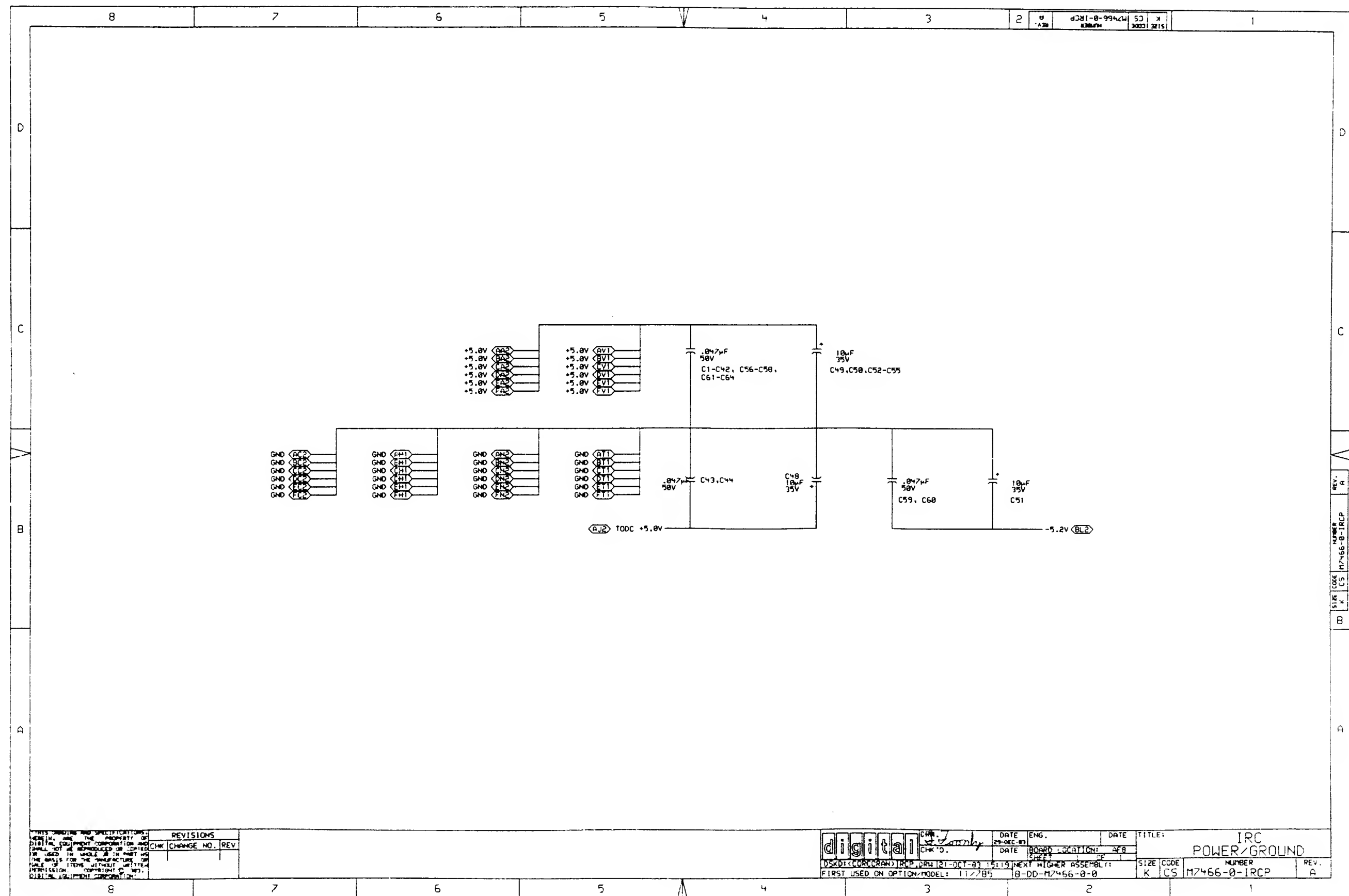












|   |                |                |                       |                                     |                |                         |                          |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
|---|----------------|----------------|-----------------------|-------------------------------------|----------------|-------------------------|--------------------------|---------------------|--------|----------------|-------------|------|----------------|-------------|--------------------------|----------------|----------------|-----|------|----------------|--|-----------|-----------------|--|------|------------|--|---------------------|---------------------|--|------|-----------------|--|------|--------------|-------------------------------------|------|---------------------|--|------|------------|--|------------------|--------------|--|------|---------------------|--|------|------------|--|------------------|--------------|--|------|---------------------|--|------|--------------|--|------|--------------|--|------|----------------------|--|------|---------------|--|--------|--------------|--|------|---------------------|--|------|------------------|--|--------|--------------|--|------|---------------------|--|------|------------------|--|------|--------------|--|------|---------------------|--|------|------------------|--|------|--------------|--|------|-----------------|--|------|------------------|--|------|--|--|--|--|--|--|--|--|--|--------------|--|------|----------------|--|------|------------------|--|------|--------------|--|------|--------------|--|------|------------------|--|------|--------------|--|------|-------------------|--|--------|----------------|--|------|--------------|--|------|-------------------|--|--------|----------------------|--|------|--------------|--|------|-------------------|--|--------|--------------|--|--------|--------------|--|------|----------------|--|--------|--------------|--|--------|--------------|--|------|--------------------|--|------|---------------|--|------|--------------|--|------|--------------------|--|------|---------------|--|------|--------------|--|------|-----------------------|--|------|---------------------|--|--------|--------------|--|------|--------------------|--|--------|---------------------|--|--------|--|--|--|--|--|--|--|--|--|--------------|--|------|--------------------|--|--------------|---------------------|--|--------|--------------|--|------|--------------------|--|--------|---------------------|--|--------|--------------|--|------|--------------------|--|----------|---------------------|--|--------|--------------|--|------|--------------------|--|----------|---------------------|--|--------|--------------|--|------|--------------------|--|------------|---------------------|--|--------|--------------|--|------|--------------------|--|----------|---------------------|--|--------|--------------|--|------|--------------------|--|------------|----------------|--|----------|--------------|--|------|--------------------|--|----------|----------------|--|--------|--------------|--|------|--------------------|--|----------|-------------------|--|--------|--------------|--|------|--------------------|--|------------|------------------|--|--------|--|--|--|--|--|--|--|--|--|--------------|--|------|--------------------|--|----------|--------------|--|------|--------------|--|------|--------------------|--|----------|--------------|--|------|--------------|--|------|--------------------|--|------------|--------------------|--|------|--------------|--|------|--------------------|--|----------|------------|--|--------|--------------|--|------|--------------------|--|----------|-------------------|--|--------|--------------|--|------|-------------------|--|------|-----------------------|--|------|--------------|--|------|-----------------|--|------|-------------------------|--|--------|--------------|--|------|-----------------|--|------|----------------|--|------|--------------|--|------|-----------------|--|------|--------------|--|------|--------------|--|------|-----------------|--|------|----------------|--|------|--|--|--|--|--|--|--|--|--|--------------|--|------|-----------------|--|------|-------------------|--|------|--------------|--|------|-----------------|--|------|-----------------------|--|--------|-----------------|--|------|-----------------|--|--------|-----------------------|--|--------|-----------------|--|------|-----------------|--|--------|-----------------------|--|--------|-----------------|--|------|-----------------|--|------|-----------------------|--|--------|-----------------|--|------|-----------------|--|------|-----------------------|--|--------|----------------|--|--------|-----------------|--|------|-----------------------|--|--------|-------------------|--|------|-----------------|--|------|-----------------------|--|--------|---------------------|--|------|-----------------|--|------|-----------------------|--|--------|------------------|--|------|-----------------|--|------|---------------------|--|------|
| 8   | 7              | 6              | 5                     | 4                                   | 3              | 2                       | 1                        |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| <table><tr><td colspan="2">SIGNAL NAME</td><td>PAGE NUMBER(S)</td><td colspan="2">SIGNAL NAME</td><td>PAGE NUMBER(S)</td><td colspan="2">SIGNAL NAME</td><td>PAGE NUMBER(S)</td></tr><tr><td colspan="2">%AFB AAI</td><td>IRCH</td><td colspan="2">CIBH SLF TST H</td><td>IRCH</td><td colspan="2">IDPA IMX 01-6 H</td><td>IRCD</td></tr><tr><td colspan="2">BAT DCLD L</td><td>IRCL,M,K</td><td colspan="2">CLKB LECL CPT0 B1 H</td><td>IRCH</td><td colspan="2">IDPA IMX 01-7 H</td><td>IRCD</td></tr><tr><td colspan="2">BUS ID D00 L</td><td>IRCH</td><td colspan="2">CLKB LECL CPT0 B1 L</td><td>IRCH</td><td colspan="2">IDPA VAX H</td><td>IRCH,J,D,E,B,C,F</td></tr><tr><td colspan="2">BUS ID D01 L</td><td>IRCH</td><td colspan="2">CLKC LECL CPT1 B1 H</td><td>IRCH</td><td colspan="2">IDPA VAX L</td><td>IRCH,J,F,E,D,B,C</td></tr><tr><td colspan="2">BUS ID D02 L</td><td>IRCH</td><td colspan="2">CLKC LECL CPT1 B1 L</td><td>IRCH</td><td colspan="2">IDPM CLR B L</td><td>IRCC</td></tr><tr><td colspan="2">BUS ID D03 L</td><td>IRCH</td><td colspan="2">CLKD LECL CPT 2 B1 H</td><td>IRCH</td><td colspan="2">IDPM CLR B1 H</td><td>IRCF,C</td></tr><tr><td colspan="2">BUS ID D04 L</td><td>IRCH</td><td colspan="2">CLKD LECL CPT2 B1 L</td><td>IRCH</td><td colspan="2">IDPJ 00 VAL (0)H</td><td>IRCF,E</td></tr><tr><td colspan="2">BUS ID D05 L</td><td>IRCH</td><td colspan="2">CLKE LECL CPT3 B1 H</td><td>IRCH</td><td colspan="2">IDPJ 01 VAL (0)H</td><td>IRCE</td></tr><tr><td colspan="2">BUS ID D06 L</td><td>IRCH</td><td colspan="2">CLKE LECL CPT3 B1 L</td><td>IRCH</td><td colspan="2">IDPJ 02 VAL (0)H</td><td>IRCE</td></tr><tr><td colspan="2">BUS ID D07 L</td><td>IRCH</td><td colspan="2">CLKL SYS INIT H</td><td>IRCC</td><td colspan="2">IDPJ 03 VAL (0)H</td><td>IRCE</td></tr><tr><td colspan="2"> </td><td> </td><td colspan="2"> </td><td> </td><td colspan="2"> </td><td> </td></tr><tr><td colspan="2">BUS ID D08 L</td><td>IRCH</td><td colspan="2">CLKR PS DCLD L</td><td>IRCH</td><td colspan="2">IDPJ 04 VAL (1)H</td><td>IRCE</td></tr><tr><td colspan="2">BUS ID D09 L</td><td>IRCH</td><td colspan="2">DAY CLOCK +5</td><td>IRCH</td><td colspan="2">IDPJ 05 VAL (1)H</td><td>IRCE</td></tr><tr><td colspan="2">BUS ID D10 L</td><td>IRCH</td><td colspan="2">ICLD SERV BIT 0 H</td><td>IRCE,H</td><td colspan="2">IDPL REG SEL H</td><td>IRCH</td></tr><tr><td colspan="2">BUS ID D11 L</td><td>IRCH</td><td colspan="2">ICLD SERV BIT 1 H</td><td>IRCE,H</td><td colspan="2">IDPM 16 BIT B DEST L</td><td>IRCD</td></tr><tr><td colspan="2">BUS ID D12 L</td><td>IRCH</td><td colspan="2">ICLD SERV BIT 2 H</td><td>IRCH,E</td><td colspan="2">IDPM BDEST H</td><td>IRCC,D</td></tr><tr><td colspan="2">BUS ID D13 L</td><td>IRCH</td><td colspan="2">ICLD SERVICE H</td><td>IRCH,E</td><td colspan="2">IDPM BDEST L</td><td>IRCE,D</td></tr><tr><td colspan="2">BUS ID D14 L</td><td>IRCH</td><td colspan="2">ICLE REM BEMX S0 H</td><td>IRCH</td><td colspan="2">IDPM VAX SL H</td><td>IRCH</td></tr><tr><td colspan="2">BUS ID D15 L</td><td>IRCH</td><td colspan="2">ICLE REM BEMX S1 H</td><td>IRCH</td><td colspan="2">IDPM VAX SL L</td><td>IRCH</td></tr><tr><td colspan="2">BUS ID D16 L</td><td>IRCH</td><td colspan="2">ICLJ ID RIGHT WRITE L</td><td>IRCH</td><td colspan="2">IRCA CM DECODE 00 L</td><td>IRCA,B</td></tr><tr><td colspan="2">BUS ID D17 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-0 (0)H</td><td>IRCH,M</td><td colspan="2">IRCA CM DECODE 01 L</td><td>IRCA,B</td></tr><tr><td colspan="2"> </td><td> </td><td colspan="2"> </td><td> </td><td colspan="2"> </td><td> </td></tr><tr><td colspan="2">BUS ID D18 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-0 (1)H</td><td>IRCH,M,A,J,D</td><td colspan="2">IRCA CM DECODE 02 L</td><td>IRCA,B</td></tr><tr><td colspan="2">BUS ID D19 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-1 (0)H</td><td>IRCH,M</td><td colspan="2">IRCA CM DECODE 03 L</td><td>IRCA,B</td></tr><tr><td colspan="2">BUS ID D20 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-1 (1)H</td><td>IRCH,A,D</td><td colspan="2">IRCA CM DECODE 04 L</td><td>IRCA,B</td></tr><tr><td colspan="2">BUS ID D21 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-2 (0)H</td><td>IRCH,M,D</td><td colspan="2">IRCA CM DECODE 05 L</td><td>IRCA,B</td></tr><tr><td colspan="2">BUS ID D22 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-2 (1)H</td><td>IRCH,M,A,D</td><td colspan="2">IRCA CM DECODE 06 L</td><td>IRCA,B</td></tr><tr><td colspan="2">BUS ID D23 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-3 (0)H</td><td>IRCH,M,D</td><td colspan="2">IRCA CM DECODE 07 L</td><td>IRCA,B</td></tr><tr><td colspan="2">BUS ID D24 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-3 (1)H</td><td>IRCH,A,M,D</td><td colspan="2">IRCA CM EXEC H</td><td>IRCA,E,B</td></tr><tr><td colspan="2">BUS ID D25 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-4 (0)H</td><td>IRCH,M,D</td><td colspan="2">IRCA CM EXEC L</td><td>IRCD,A</td></tr><tr><td colspan="2">BUS ID D26 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-4 (1)H</td><td>IRCH,A,D</td><td colspan="2">IRCA CM WRT CHK H</td><td>IRCA,M</td></tr><tr><td colspan="2">BUS ID D27 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-5 (0)H</td><td>IRCH,M,E,D</td><td colspan="2">IRCA CMP + BIT L</td><td>IRCH,A</td></tr><tr><td colspan="2"> </td><td> </td><td colspan="2"> </td><td> </td><td colspan="2"> </td><td> </td></tr><tr><td colspan="2">BUS ID D28 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-5 (1)H</td><td>IRCH,A,D</td><td colspan="2">IRCA CRT 0 H</td><td>IRCA</td></tr><tr><td colspan="2">BUS ID D29 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-6 (0)H</td><td>IRCH,M,D</td><td colspan="2">IRCA CRT 1 H</td><td>IRCA</td></tr><tr><td colspan="2">BUS ID D30 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-6 (1)H</td><td>IRCH,A,D,E</td><td colspan="2">IRCA DEST MODE 0 H</td><td>IRCA</td></tr><tr><td colspan="2">BUS ID D31 L</td><td>IRCH</td><td colspan="2">IDPA BUF 01-7 (0)H</td><td>IRCH,M,E</td><td colspan="2">IRCA DM0 H</td><td>IRCA,B</td></tr><tr><td colspan="2">BUS UPC 00 L</td><td>IRCE</td><td colspan="2">IDPA BUF 01-7 (1)H</td><td>IRCH,M,D</td><td colspan="2">IRCA DST MODE 0 L</td><td>IRCA,B</td></tr><tr><td colspan="2">BUS UPC 01 L</td><td>IRCE</td><td colspan="2">IDPA DST R MODE H</td><td>IRCC</td><td colspan="2">IRCA LITERAL TO REG H</td><td>IRCA</td></tr><tr><td colspan="2">BUS UPC 02 L</td><td>IRCE</td><td colspan="2">IDPA IMX 00-0 H</td><td>IRCC</td><td colspan="2">IRCA MOV8 + CMP + BIT H</td><td>IRCH,A</td></tr><tr><td colspan="2">BUS UPC 03 L</td><td>IRCE</td><td colspan="2">IDPA IMX 00-1 H</td><td>IRCC</td><td colspan="2">IRCA SEL SRC H</td><td>IRCA</td></tr><tr><td colspan="2">BUS UPC 04 L</td><td>IRCE</td><td colspan="2">IDPA IMX 00-2 H</td><td>IRCC</td><td colspan="2">IRCB 0 VAX L</td><td>IRCB</td></tr><tr><td colspan="2">BUS UPC 05 L</td><td>IRCE</td><td colspan="2">IDPA IMX 00-3 H</td><td>IRCC</td><td colspan="2">IRCB 01T+CMF L</td><td>IRCB</td></tr><tr><td colspan="2"> </td><td> </td><td colspan="2"> </td><td> </td><td colspan="2"> </td><td> </td></tr><tr><td colspan="2">BUS UPC 06 L</td><td>IRCE</td><td colspan="2">IDPA IMX 00-4 H</td><td>IRCC</td><td colspan="2">IRCB CM DEST=PC L</td><td>IRCB</td></tr><tr><td colspan="2">BUS UPC 07 L</td><td>IRCE</td><td colspan="2">IDPA IMX 00-5 H</td><td>IRCC</td><td colspan="2">IRCB DECODE ADRS 00 H</td><td>IRCB,E</td></tr><tr><td colspan="2">CEHB PSL CBIT H</td><td>IRCF</td><td colspan="2">IDPA IMX 00-6 H</td><td>IRCC,D</td><td colspan="2">IRCB DECODE ADRS 01 H</td><td>IRCB,E</td></tr><tr><td colspan="2">CEHB PSL MBIT H</td><td>IRCF</td><td colspan="2">IDPA IMX 00-7 H</td><td>IRCC,D</td><td colspan="2">IRCB DECODE ADRS 02 H</td><td>IRCB,E</td></tr><tr><td colspan="2">CEHB PSL VBIT H</td><td>IRCF</td><td colspan="2">IDPA IMX 01-0 H</td><td>IRCD</td><td colspan="2">IRCB DECODE ADRS 03 H</td><td>IRCE,B</td></tr><tr><td colspan="2">CEHB PSL ZBIT H</td><td>IRCF</td><td colspan="2">IDPA IMX 01-1 H</td><td>IRCD</td><td colspan="2">IRCB DECODE ADRS 04 H</td><td>IRCE,B</td></tr><tr><td colspan="2">CEHH FPD BIT L</td><td>IRCH,C</td><td colspan="2">IDPA IMX 01-2 H</td><td>IRCD</td><td colspan="2">IRCB DECODE ADRS 05 H</td><td>IRCE,B</td></tr><tr><td colspan="2">CEHH PSL CMP (1)H</td><td>IRCF</td><td colspan="2">IDPA IMX 01-3 H</td><td>IRCD</td><td colspan="2">IRCB DECODE ADRS 06 H</td><td>IRCB,E</td></tr><tr><td colspan="2">CIBH SDMS DEL CLK L</td><td>IRCH</td><td colspan="2">IDPA IMX 01-4 H</td><td>IRCD</td><td colspan="2">IRCB DECODE ADRS 07 H</td><td>IRCB,E</td></tr><tr><td colspan="2">CIBH SDMS LOAD H</td><td>IRCH</td><td colspan="2">IDPA IMX 01-5 H</td><td>IRCD</td><td colspan="2">IRCB PC REF ABORT L</td><td>IRCB</td></tr></table> |                |                |                       |                                     |                |                         |                          | SIGNAL NAME         |        | PAGE NUMBER(S) | SIGNAL NAME |      | PAGE NUMBER(S) | SIGNAL NAME |                          | PAGE NUMBER(S) | %AFB AAI       |     | IRCH | CIBH SLF TST H |  | IRCH      | IDPA IMX 01-6 H |  | IRCD | BAT DCLD L |  | IRCL,M,K            | CLKB LECL CPT0 B1 H |  | IRCH | IDPA IMX 01-7 H |  | IRCD | BUS ID D00 L |                                     | IRCH | CLKB LECL CPT0 B1 L |  | IRCH | IDPA VAX H |  | IRCH,J,D,E,B,C,F | BUS ID D01 L |  | IRCH | CLKC LECL CPT1 B1 H |  | IRCH | IDPA VAX L |  | IRCH,J,F,E,D,B,C | BUS ID D02 L |  | IRCH | CLKC LECL CPT1 B1 L |  | IRCH | IDPM CLR B L |  | IRCC | BUS ID D03 L |  | IRCH | CLKD LECL CPT 2 B1 H |  | IRCH | IDPM CLR B1 H |  | IRCF,C | BUS ID D04 L |  | IRCH | CLKD LECL CPT2 B1 L |  | IRCH | IDPJ 00 VAL (0)H |  | IRCF,E | BUS ID D05 L |  | IRCH | CLKE LECL CPT3 B1 H |  | IRCH | IDPJ 01 VAL (0)H |  | IRCE | BUS ID D06 L |  | IRCH | CLKE LECL CPT3 B1 L |  | IRCH | IDPJ 02 VAL (0)H |  | IRCE | BUS ID D07 L |  | IRCH | CLKL SYS INIT H |  | IRCC | IDPJ 03 VAL (0)H |  | IRCE |  |  |  |  |  |  |  |  |  | BUS ID D08 L |  | IRCH | CLKR PS DCLD L |  | IRCH | IDPJ 04 VAL (1)H |  | IRCE | BUS ID D09 L |  | IRCH | DAY CLOCK +5 |  | IRCH | IDPJ 05 VAL (1)H |  | IRCE | BUS ID D10 L |  | IRCH | ICLD SERV BIT 0 H |  | IRCE,H | IDPL REG SEL H |  | IRCH | BUS ID D11 L |  | IRCH | ICLD SERV BIT 1 H |  | IRCE,H | IDPM 16 BIT B DEST L |  | IRCD | BUS ID D12 L |  | IRCH | ICLD SERV BIT 2 H |  | IRCH,E | IDPM BDEST H |  | IRCC,D | BUS ID D13 L |  | IRCH | ICLD SERVICE H |  | IRCH,E | IDPM BDEST L |  | IRCE,D | BUS ID D14 L |  | IRCH | ICLE REM BEMX S0 H |  | IRCH | IDPM VAX SL H |  | IRCH | BUS ID D15 L |  | IRCH | ICLE REM BEMX S1 H |  | IRCH | IDPM VAX SL L |  | IRCH | BUS ID D16 L |  | IRCH | ICLJ ID RIGHT WRITE L |  | IRCH | IRCA CM DECODE 00 L |  | IRCA,B | BUS ID D17 L |  | IRCH | IDPA BUF 01-0 (0)H |  | IRCH,M | IRCA CM DECODE 01 L |  | IRCA,B |  |  |  |  |  |  |  |  |  | BUS ID D18 L |  | IRCH | IDPA BUF 01-0 (1)H |  | IRCH,M,A,J,D | IRCA CM DECODE 02 L |  | IRCA,B | BUS ID D19 L |  | IRCH | IDPA BUF 01-1 (0)H |  | IRCH,M | IRCA CM DECODE 03 L |  | IRCA,B | BUS ID D20 L |  | IRCH | IDPA BUF 01-1 (1)H |  | IRCH,A,D | IRCA CM DECODE 04 L |  | IRCA,B | BUS ID D21 L |  | IRCH | IDPA BUF 01-2 (0)H |  | IRCH,M,D | IRCA CM DECODE 05 L |  | IRCA,B | BUS ID D22 L |  | IRCH | IDPA BUF 01-2 (1)H |  | IRCH,M,A,D | IRCA CM DECODE 06 L |  | IRCA,B | BUS ID D23 L |  | IRCH | IDPA BUF 01-3 (0)H |  | IRCH,M,D | IRCA CM DECODE 07 L |  | IRCA,B | BUS ID D24 L |  | IRCH | IDPA BUF 01-3 (1)H |  | IRCH,A,M,D | IRCA CM EXEC H |  | IRCA,E,B | BUS ID D25 L |  | IRCH | IDPA BUF 01-4 (0)H |  | IRCH,M,D | IRCA CM EXEC L |  | IRCD,A | BUS ID D26 L |  | IRCH | IDPA BUF 01-4 (1)H |  | IRCH,A,D | IRCA CM WRT CHK H |  | IRCA,M | BUS ID D27 L |  | IRCH | IDPA BUF 01-5 (0)H |  | IRCH,M,E,D | IRCA CMP + BIT L |  | IRCH,A |  |  |  |  |  |  |  |  |  | BUS ID D28 L |  | IRCH | IDPA BUF 01-5 (1)H |  | IRCH,A,D | IRCA CRT 0 H |  | IRCA | BUS ID D29 L |  | IRCH | IDPA BUF 01-6 (0)H |  | IRCH,M,D | IRCA CRT 1 H |  | IRCA | BUS ID D30 L |  | IRCH | IDPA BUF 01-6 (1)H |  | IRCH,A,D,E | IRCA DEST MODE 0 H |  | IRCA | BUS ID D31 L |  | IRCH | IDPA BUF 01-7 (0)H |  | IRCH,M,E | IRCA DM0 H |  | IRCA,B | BUS UPC 00 L |  | IRCE | IDPA BUF 01-7 (1)H |  | IRCH,M,D | IRCA DST MODE 0 L |  | IRCA,B | BUS UPC 01 L |  | IRCE | IDPA DST R MODE H |  | IRCC | IRCA LITERAL TO REG H |  | IRCA | BUS UPC 02 L |  | IRCE | IDPA IMX 00-0 H |  | IRCC | IRCA MOV8 + CMP + BIT H |  | IRCH,A | BUS UPC 03 L |  | IRCE | IDPA IMX 00-1 H |  | IRCC | IRCA SEL SRC H |  | IRCA | BUS UPC 04 L |  | IRCE | IDPA IMX 00-2 H |  | IRCC | IRCB 0 VAX L |  | IRCB | BUS UPC 05 L |  | IRCE | IDPA IMX 00-3 H |  | IRCC | IRCB 01T+CMF L |  | IRCB |  |  |  |  |  |  |  |  |  | BUS UPC 06 L |  | IRCE | IDPA IMX 00-4 H |  | IRCC | IRCB CM DEST=PC L |  | IRCB | BUS UPC 07 L |  | IRCE | IDPA IMX 00-5 H |  | IRCC | IRCB DECODE ADRS 00 H |  | IRCB,E | CEHB PSL CBIT H |  | IRCF | IDPA IMX 00-6 H |  | IRCC,D | IRCB DECODE ADRS 01 H |  | IRCB,E | CEHB PSL MBIT H |  | IRCF | IDPA IMX 00-7 H |  | IRCC,D | IRCB DECODE ADRS 02 H |  | IRCB,E | CEHB PSL VBIT H |  | IRCF | IDPA IMX 01-0 H |  | IRCD | IRCB DECODE ADRS 03 H |  | IRCE,B | CEHB PSL ZBIT H |  | IRCF | IDPA IMX 01-1 H |  | IRCD | IRCB DECODE ADRS 04 H |  | IRCE,B | CEHH FPD BIT L |  | IRCH,C | IDPA IMX 01-2 H |  | IRCD | IRCB DECODE ADRS 05 H |  | IRCE,B | CEHH PSL CMP (1)H |  | IRCF | IDPA IMX 01-3 H |  | IRCD | IRCB DECODE ADRS 06 H |  | IRCB,E | CIBH SDMS DEL CLK L |  | IRCH | IDPA IMX 01-4 H |  | IRCD | IRCB DECODE ADRS 07 H |  | IRCB,E | CIBH SDMS LOAD H |  | IRCH | IDPA IMX 01-5 H |  | IRCD | IRCB PC REF ABORT L |  | IRCB |
| SIGNAL NAME   |                | PAGE NUMBER(S) | SIGNAL NAME           |                                     | PAGE NUMBER(S) | SIGNAL NAME             |                          | PAGE NUMBER(S)      |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| %AFB AAI  |                | IRCH           | CIBH SLF TST H        |                                     | IRCH           | IDPA IMX 01-6 H         |                          | IRCD                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BAT DCLD L  |                | IRCL,M,K       | CLKB LECL CPT0 B1 H   |                                     | IRCH           | IDPA IMX 01-7 H         |                          | IRCD                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D00 L  |                | IRCH           | CLKB LECL CPT0 B1 L   |                                     | IRCH           | IDPA VAX H              |                          | IRCH,J,D,E,B,C,F    |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D01 L  |                | IRCH           | CLKC LECL CPT1 B1 H   |                                     | IRCH           | IDPA VAX L              |                          | IRCH,J,F,E,D,B,C    |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D02 L  |                | IRCH           | CLKC LECL CPT1 B1 L   |                                     | IRCH           | IDPM CLR B L            |                          | IRCC                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D03 L  |                | IRCH           | CLKD LECL CPT 2 B1 H  |                                     | IRCH           | IDPM CLR B1 H           |                          | IRCF,C              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D04 L  |                | IRCH           | CLKD LECL CPT2 B1 L   |                                     | IRCH           | IDPJ 00 VAL (0)H        |                          | IRCF,E              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D05 L  |                | IRCH           | CLKE LECL CPT3 B1 H   |                                     | IRCH           | IDPJ 01 VAL (0)H        |                          | IRCE                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D06 L  |                | IRCH           | CLKE LECL CPT3 B1 L   |                                     | IRCH           | IDPJ 02 VAL (0)H        |                          | IRCE                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D07 L  |                | IRCH           | CLKL SYS INIT H       |                                     | IRCC           | IDPJ 03 VAL (0)H        |                          | IRCE                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
|   |                |                |                       |                                     |                |                         |                          |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D08 L  |                | IRCH           | CLKR PS DCLD L        |                                     | IRCH           | IDPJ 04 VAL (1)H        |                          | IRCE                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D09 L  |                | IRCH           | DAY CLOCK +5          |                                     | IRCH           | IDPJ 05 VAL (1)H        |                          | IRCE                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D10 L  |                | IRCH           | ICLD SERV BIT 0 H     |                                     | IRCE,H         | IDPL REG SEL H          |                          | IRCH                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D11 L  |                | IRCH           | ICLD SERV BIT 1 H     |                                     | IRCE,H         | IDPM 16 BIT B DEST L    |                          | IRCD                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D12 L  |                | IRCH           | ICLD SERV BIT 2 H     |                                     | IRCH,E         | IDPM BDEST H            |                          | IRCC,D              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D13 L  |                | IRCH           | ICLD SERVICE H        |                                     | IRCH,E         | IDPM BDEST L            |                          | IRCE,D              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D14 L  |                | IRCH           | ICLE REM BEMX S0 H    |                                     | IRCH           | IDPM VAX SL H           |                          | IRCH                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D15 L  |                | IRCH           | ICLE REM BEMX S1 H    |                                     | IRCH           | IDPM VAX SL L           |                          | IRCH                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D16 L  |                | IRCH           | ICLJ ID RIGHT WRITE L |                                     | IRCH           | IRCA CM DECODE 00 L     |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D17 L  |                | IRCH           | IDPA BUF 01-0 (0)H    |                                     | IRCH,M         | IRCA CM DECODE 01 L     |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
|   |                |                |                       |                                     |                |                         |                          |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D18 L  |                | IRCH           | IDPA BUF 01-0 (1)H    |                                     | IRCH,M,A,J,D   | IRCA CM DECODE 02 L     |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D19 L  |                | IRCH           | IDPA BUF 01-1 (0)H    |                                     | IRCH,M         | IRCA CM DECODE 03 L     |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D20 L  |                | IRCH           | IDPA BUF 01-1 (1)H    |                                     | IRCH,A,D       | IRCA CM DECODE 04 L     |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D21 L  |                | IRCH           | IDPA BUF 01-2 (0)H    |                                     | IRCH,M,D       | IRCA CM DECODE 05 L     |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D22 L  |                | IRCH           | IDPA BUF 01-2 (1)H    |                                     | IRCH,M,A,D     | IRCA CM DECODE 06 L     |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D23 L  |                | IRCH           | IDPA BUF 01-3 (0)H    |                                     | IRCH,M,D       | IRCA CM DECODE 07 L     |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D24 L  |                | IRCH           | IDPA BUF 01-3 (1)H    |                                     | IRCH,A,M,D     | IRCA CM EXEC H          |                          | IRCA,E,B            |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D25 L  |                | IRCH           | IDPA BUF 01-4 (0)H    |                                     | IRCH,M,D       | IRCA CM EXEC L          |                          | IRCD,A              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D26 L  |                | IRCH           | IDPA BUF 01-4 (1)H    |                                     | IRCH,A,D       | IRCA CM WRT CHK H       |                          | IRCA,M              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D27 L  |                | IRCH           | IDPA BUF 01-5 (0)H    |                                     | IRCH,M,E,D     | IRCA CMP + BIT L        |                          | IRCH,A              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
|   |                |                |                       |                                     |                |                         |                          |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D28 L  |                | IRCH           | IDPA BUF 01-5 (1)H    |                                     | IRCH,A,D       | IRCA CRT 0 H            |                          | IRCA                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D29 L  |                | IRCH           | IDPA BUF 01-6 (0)H    |                                     | IRCH,M,D       | IRCA CRT 1 H            |                          | IRCA                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D30 L  |                | IRCH           | IDPA BUF 01-6 (1)H    |                                     | IRCH,A,D,E     | IRCA DEST MODE 0 H      |                          | IRCA                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS ID D31 L  |                | IRCH           | IDPA BUF 01-7 (0)H    |                                     | IRCH,M,E       | IRCA DM0 H              |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS UPC 00 L  |                | IRCE           | IDPA BUF 01-7 (1)H    |                                     | IRCH,M,D       | IRCA DST MODE 0 L       |                          | IRCA,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS UPC 01 L  |                | IRCE           | IDPA DST R MODE H     |                                     | IRCC           | IRCA LITERAL TO REG H   |                          | IRCA                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS UPC 02 L  |                | IRCE           | IDPA IMX 00-0 H       |                                     | IRCC           | IRCA MOV8 + CMP + BIT H |                          | IRCH,A              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS UPC 03 L  |                | IRCE           | IDPA IMX 00-1 H       |                                     | IRCC           | IRCA SEL SRC H          |                          | IRCA                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS UPC 04 L  |                | IRCE           | IDPA IMX 00-2 H       |                                     | IRCC           | IRCB 0 VAX L            |                          | IRCB                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS UPC 05 L  |                | IRCE           | IDPA IMX 00-3 H       |                                     | IRCC           | IRCB 01T+CMF L          |                          | IRCB                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
|   |                |                |                       |                                     |                |                         |                          |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS UPC 06 L  |                | IRCE           | IDPA IMX 00-4 H       |                                     | IRCC           | IRCB CM DEST=PC L       |                          | IRCB                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| BUS UPC 07 L  |                | IRCE           | IDPA IMX 00-5 H       |                                     | IRCC           | IRCB DECODE ADRS 00 H   |                          | IRCB,E              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| CEHB PSL CBIT H   |                | IRCF           | IDPA IMX 00-6 H       |                                     | IRCC,D         | IRCB DECODE ADRS 01 H   |                          | IRCB,E              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| CEHB PSL MBIT H   |                | IRCF           | IDPA IMX 00-7 H       |                                     | IRCC,D         | IRCB DECODE ADRS 02 H   |                          | IRCB,E              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| CEHB PSL VBIT H   |                | IRCF           | IDPA IMX 01-0 H       |                                     | IRCD           | IRCB DECODE ADRS 03 H   |                          | IRCE,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| CEHB PSL ZBIT H   |                | IRCF           | IDPA IMX 01-1 H       |                                     | IRCD           | IRCB DECODE ADRS 04 H   |                          | IRCE,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| CEHH FPD BIT L  |                | IRCH,C         | IDPA IMX 01-2 H       |                                     | IRCD           | IRCB DECODE ADRS 05 H   |                          | IRCE,B              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| CEHH PSL CMP (1)H   |                | IRCF           | IDPA IMX 01-3 H       |                                     | IRCD           | IRCB DECODE ADRS 06 H   |                          | IRCB,E              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| CIBH SDMS DEL CLK L   |                | IRCH           | IDPA IMX 01-4 H       |                                     | IRCD           | IRCB DECODE ADRS 07 H   |                          | IRCB,E              |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| CIBH SDMS LOAD H  |                | IRCH           | IDPA IMX 01-5 H       |                                     | IRCD           | IRCB PC REF ABORT L     |                          | IRCB                |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| <p>NOTES:</p> <p>1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.</p>   |                |                |                       |                                     |                |                         |                          |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| <table><tr><td colspan="2">REVISIONS</td><td colspan="2">digital</td><td>DATE</td><td>ENG.</td><td>DATE</td><td>TITLE: FORWARD REFERENCE</td></tr><tr><td>CHK</td><td>CHANGE NO. REV</td><td>CHK</td><td>D.</td><td>29-DEC-83</td><td></td><td>21-OCT-81</td><td></td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2">BOARD LOCATION: AFB</td><td colspan="2"></td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2">FIRST USED ON OPTION/MODEL: 11/2785</td><td colspan="2">B-DD-M7466-0</td></tr></table>   |                |                |                       |                                     |                |                         |                          | REVISIONS           |        | digital        |             | DATE | ENG.           | DATE        | TITLE: FORWARD REFERENCE | CHK            | CHANGE NO. REV | CHK | D.   | 29-DEC-83      |  | 21-OCT-81 |                 |  |      |            |  | BOARD LOCATION: AFB |                     |  |      |                 |  |      |              | FIRST USED ON OPTION/MODEL: 11/2785 |      | B-DD-M7466-0        |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| REVISIONS   |                | digital        |                       | DATE                                | ENG.           | DATE                    | TITLE: FORWARD REFERENCE |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| CHK   | CHANGE NO. REV | CHK            | D.                    | 29-DEC-83                           |                | 21-OCT-81               |                          |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
|   |                |                |                       | BOARD LOCATION: AFB                 |                |                         |                          |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
|   |                |                |                       | FIRST USED ON OPTION/MODEL: 11/2785 |                | B-DD-M7466-0            |                          |                     |        |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |
| THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OF SALEABLE ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983. DIGITAL EQUIPMENT CORPORATION   |                |                |                       |                                     |                | SIZE CODE K CS          |                          | NUMBER M7466-0-IRCR | REV. A |                |             |      |                |             |                          |                |                |     |      |                |  |           |                 |  |      |            |  |                     |                     |  |      |                 |  |      |              |                                     |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |            |  |                  |              |  |      |                     |  |      |              |  |      |              |  |      |                      |  |      |               |  |        |              |  |      |                     |  |      |                  |  |        |              |  |      |                     |  |      |                  |  |      |              |  |      |                     |  |      |                  |  |      |              |  |      |                 |  |      |                  |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                |  |      |                  |  |      |              |  |      |              |  |      |                  |  |      |              |  |      |                   |  |        |                |  |      |              |  |      |                   |  |        |                      |  |      |              |  |      |                   |  |        |              |  |        |              |  |      |                |  |        |              |  |        |              |  |      |                    |  |      |               |  |      |              |  |      |                    |  |      |               |  |      |              |  |      |                       |  |      |                     |  |        |              |  |      |                    |  |        |                     |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |              |                     |  |        |              |  |      |                    |  |        |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                     |  |        |              |  |      |                    |  |          |                     |  |        |              |  |      |                    |  |            |                |  |          |              |  |      |                    |  |          |                |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                    |  |            |                  |  |        |  |  |  |  |  |  |  |  |  |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |          |              |  |      |              |  |      |                    |  |            |                    |  |      |              |  |      |                    |  |          |            |  |        |              |  |      |                    |  |          |                   |  |        |              |  |      |                   |  |      |                       |  |      |              |  |      |                 |  |      |                         |  |        |              |  |      |                 |  |      |                |  |      |              |  |      |                 |  |      |              |  |      |              |  |      |                 |  |      |                |  |      |  |  |  |  |  |  |  |  |  |              |  |      |                 |  |      |                   |  |      |              |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |        |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                 |  |      |                 |  |      |                       |  |        |                |  |        |                 |  |      |                       |  |        |                   |  |      |                 |  |      |                       |  |        |                     |  |      |                 |  |      |                       |  |        |                  |  |      |                 |  |      |                     |  |      |

8

7

6

5

4

3

2

1

SD-1-8-994241 SD 3000 3015

## SIGNAL NAME

## PAGE NUMBER(S)

IRCB REG WRITE L  
IRCB SEL SPC H  
IRCB WRITE ABORT L  
IRCC B CLR B L  
IRCC COUNT EXC H  
IRCC EN SERVICE BR H  
IRCC EP0 H  
IRCC EP0 L  
IRCC EP1 H  
IRCC EP2 H

IRCB  
IRCB  
IRCB  
IRCF,C  
IRCC  
IRCC,E  
IRCH,C  
IRCH,C  
IRCH,C  
IRCH,C

IRCC EXC CT0 (0)H  
IRCC EXC CT0 (1)H  
IRCC EXC CT1 (0)H  
IRCC EXC CT1 (1)H  
IRCC EXC CT2 (0)H  
IRCC EXC CT2 (1)H  
IRCC INIT L  
IRCC IR00 (0)H  
IRCC IR00 (1)H  
IRCC IR01 (0)H

IRCA,E,C,D  
IRCA,C  
IRCA,E,C,D  
IRCC,A  
IRCE,C  
IRCE,C  
IRCH,H,E,C  
IRCF,C,E  
IRCH,A,F,C,D,B  
IRCF,C,E

IRCC IR01 (1)H  
IRCC IR02 (0)H  
IRCC IR02 (1)H  
IRCC IR03 (0)H  
IRCC IR03 (1)H  
IRCC IR04 (0)H  
IRCC IR04 (1)H  
IRCC IR05 (0)H  
IRCC IR05 (1)H  
IRCC IR06 (0)H

IRCH,A,C,E,D  
IRCE,C,E,B  
IRCH,A,C,F,E,D  
IRCF,A,H,C,E,B  
IRCA,F,C  
IRCH,A,F,C,E,D  
IRCA,H,F,C,B  
IRCA,F,H,C,E,D  
IRCH,A,F,C  
IRCH,F,C,E

IRCC IR06 (1)H  
IRCC IR07 (0)H  
IRCC IR07 (1)H  
IRCC SEL EXEC H  
IRCC VAX DECODE 00 H  
IRCC VAX DECODE 01 H  
IRCC VAX DECODE 02 H  
IRCC VAX DECODE 03 H  
IRCC VAX DECODE 04 H  
IRCC VAX DECODE 05 H

IRCH,A,F,C,J,D  
IRCH,F,C,E  
IRCH,A,F,C,E,J,D  
IRCB,C  
IRCB,C  
IRCB,C  
IRCB,C  
IRCC,B  
IRCC,B,E  
IRCC,B,E

IRCC VAX DECODE 06 H  
IRCC VAX DECODE 07 H  
IRCD ABSOLUTE MODE L  
IRCD B1H H  
IRCD B1H L  
IRCD BYTE 1+0 H  
IRCD BYTE 1+0 L  
IRCD D16 + D32 L  
IRCD D32 L  
IRCD DISP MODE L

IRCH,H,B,C  
IRCH,B,C  
IRCD  
IRCD,A  
IRCA,D  
IRCA,D  
IRCD  
IRCD  
IRCD

## SIGNAL NAME

## PAGE NUMBER(S)

IRCD DST NEEDS 20 H  
IRCD DST R=PC L  
IRCD IMMED L  
IRCD IR 14:12+0 H  
IRCD IR 14:12+0 L  
IRCD MODE 0+9 H  
IRCD PC MODE H  
IRCD PC MODE L  
IRCD R=PC H  
IRCD R=PC L

IRCD  
IRCA,H,D  
IRCD  
IRCH,E,A,D  
IRCF,A,D  
IRCD  
IRCB,D,E  
IRCD,B  
IRCD,B  
IRCD,D,F

IRCD REG CLASS L  
IRCD SEL BYTE H  
IRCD SEL LONG H  
IRCD SEL LONG L  
IRCD SEL WORD H  
IRCD SEL WORD L  
IRCD SINGLE OP L  
IRCD SMO L  
IRCD SRC EP0 H  
IRCD SRC NEEDS 23 H

IRCD,F  
IRCE,D  
IRCD,E  
IRCD  
IRCD,E  
IRCD  
IRCD,F  
IRCA,D  
IRCA,D  
IRCD

IRCD SRC R=PC H  
IRCE CM BYTE IHSTR H  
IRCE CM BYTE IHSTR L  
IRCE CTX 0 H  
IRCE CTX 1 H  
IRCE CTX 2 H  
IRCE CTX 2 L  
IRCE CTX 3 H  
IRCE CTX 3 L  
IRCE DST CON=1 H

IRCH,A,D  
IRCE  
IRCE  
IRCH,J,B,E  
IRCH,H,B,E  
IRCB,E  
IRCF,E  
IRCB,E  
IRCF,F,E  
IRCF,E

IRCE DST CON=2 H  
IRCE DST REG 6+7 L  
IRCE EXECUTE L  
IRCE IB ADVANCE (0)H  
IRCE IB ADVANCE (1)H  
IRCE IB ADVANCE H  
IRCE LOAD PRN H  
IRCE REG + E MODE H  
IRCE SAVE H  
IRCE SRC CDH=1 L

IRCF,E  
IRCE  
IRCE  
IRCE  
IRCE  
IRCE  
IRCF,E,B  
IRCE  
IRCF,E

IRCE SRC CDH=2 L  
IRCE SRC REG 6+7 L  
IRCE SRV+IMV L  
IRCE STALL+SVC H  
IRCE STALL+SVC L  
IRCF BC4-0 H  
IRCF BC4-1 H  
IRCF BC4-2 H  
IRCF BR COND 0 L  
IRCF BR COND 1 L

IRCF,E  
IRCE  
IRCE  
IRCH,E,J  
IRCE,C  
IRCF  
IRCF,C  
IRCF,C  
IRCF,F  
IRCB,F

## SIGNAL NAME

## PAGE NUMBER(S)

IRCF BR COND 2 L  
IRCF BYTE L  
IRCF CTX 2 B H  
IRCF CTX 3 B H  
IRCF DIS OPT L  
IRCF E MODE (0)H  
IRCF E MODE (1)H  
IRCF E MODE L  
IRCF ESC (0)H  
IRCF ESC (1)H

IRCF,B  
IRCF,F  
IRCF,H  
IRCF,H  
IRCF,B,E  
IRCF  
IRCB,F  
IRCF,C  
IRCF,F  
IRCF

IRCF LA L  
IRCF LONG L  
IRCF MAB H  
IRCF OPC 0 H  
IRCF OPC 1 H  
IRCF OPC 2 H  
IRCF OPC 3 H  
IRCF OPC 4 H  
IRCF OPC 5 H  
IRCF OPC 6 H

IRCF  
IRCF,J  
IRCH,F,H  
IRCF  
IRCF  
IRCF  
IRCF  
IRCF  
IRCF  
IRCF

IRCF OPC 7 H  
IRCF QUAD L  
IRCF R MODE H  
IRCF R MODE L  
IRCF REG CLASS L  
IRCF SINGLE OP L  
IRCF WORD L  
IRCH (SM+5+DM+5) H  
IRCH A CPU TB H  
IRCH A CPU TB L

IRCF  
IRCF,F  
IRCF,B  
IRCF,B,C  
IRCD,F,A  
IRCD,F,A  
IRCF,F  
IRCH  
IRCC,H,D,F  
IRCH,H

IRCH ASRC+QUAD H  
IRCH B CPU TB L  
IRCH BR INSTR H  
IRCH BRC 0 H  
IRCH BRC 1 H  
IRCH C CPU TB H  
IRCH CM BR INSTR L  
IRCH CPU T1 H  
IRCH CPU T2 H  
IRCH CPU T2 L

IRCF,H  
IRCH,C,F  
IRCH,B  
IRCH  
IRCH  
IRCH,H,C  
IRCH  
IRCH,H  
IRCE,H  
IRCH,H

IRCH CPU T3 H  
IRCH CTX 1 L  
IRCH DM27 L  
IRCH DST R=PC H  
IRCH ERR H  
IRCH FPSL L  
IRCH IB CHK 0 H  
IRCH IB CHK 1 H  
IRCH IB WRITE CHK H  
IRCH JMP L

IRCF,F,H  
IRCH,J  
IRCH  
IRCH,B  
IRCH,E  
IRCH  
IRCH  
IRCH  
IRCH  
IRCH

## NOTES:

1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART OR FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983. DIGITAL EQUIPMENT CORPORATION.

## REVISIONS

CHK CHANGE NO. REV

digital

DATE 29-DEC-83

ENG. DATE

DATE

DATE

DATE

DATE

DATE

CHK'D.

DATE

DATE

DATE

FIRST USED ON OPTION/MODEL: 11/795

DATE

DATE

DATE

8

7

6

5

4

3

2

1

REV. A

REV. A

REV. A

REV. A

REV. A

REV. A

REV. A

REV. A

REV. A

REV. A

REV. A

REV. A

REV. A







AUTOMATED BY PRTLST,5R(55)

PARTS LIST

SHEET A1 OF A2

| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                     | QTY | PER VARIATION | REFERENCE DESIGNATOR             |
|------|------|--------------|-------------|---------|---------------------------------|-----|---------------|----------------------------------|
|      |      |              |             |         |                                 |     |               |                                  |
|      |      |              |             |         | VARIATION REVISION LEVEL:       | 00  |               |                                  |
|      |      |              |             |         |                                 | A1  |               |                                  |
| 1    | 1    |              | 5016072-01  |         | DATA PATH                       | 1   |               |                                  |
| 2    | 2    |              | 1017472-00  |         | 10 MFD 35V +50-10% AL EL        | 7   |               | C1-C7                            |
| 3    | 3    |              | 1012704-00  |         | .047 MFD 50V +80-20% CER        | 56  |               | C8-C63                           |
| 4    | 4    |              | 1216988-02  |         | HANDLE MODULE, HEX TWO EJECTORS | 1   |               |                                  |
| 5    | 5    |              | 1300247-00  |         | 120.0 .25 W 5.0 % CF            | 2   |               | R12,R14                          |
| 6    | 6    |              | 1300250-00  |         | 150.0 .25 W 5.0 % CF            | 2   |               | R11,R13                          |
| 7    | 7    |              | 1300295-00  |         | 330.0 .25 W 5.0 % CF            | 5   |               | R1,R3,R5,R7,R9                   |
| 8    | 8    |              | 1301424-00  |         | 680.0 .25 W 5.0 % CF            | 1   |               | R10                              |
| 9    | 9    |              | 1301775-00  |         | 820.0 .25 W 5.0 % CF            | 4   |               | R2,R4,R6,R9                      |
| 10   | 10   |              | 1911712-00  |         | 74S51 AND-OR GATE-INVERT D      | 2   |               | E144,E125                        |
| 11   | 11   |              | 1912746-01  |         | 74S37-1BUFFER-GATE              | 1   |               | E147                             |
| 12   | 12   |              | 1912796-00  |         | 74148 ENCODER,PRIORITY,8 T      | 4   |               | E76,E79,E62,E91                  |
| 13   | 13   |              | 1913788-00  |         | 26S10 TRANSCEIVER,BUS,QUA       | 1   |               | E48                              |
| 14   | 14   |              | 1921008-01  |         | 74F240 BUFFER/LINE DRIVER,I     | 1   |               | E84                              |
| 15   | 15   |              | 1921009-01  |         | 74F241 BUFFER/LINE DRIVER,N     | 5   |               | E39,E52,E51,E114,E66             |
| 16   | 16   |              | 1921010-01  |         | 74F373 OCTAL TRANSPARENT LA     | 1   |               | E119                             |
| 17   | 17   |              | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN       | 2   |               | E131,E149                        |
| 18   | 18   |              | 1921307-01  |         | 74F04 HEX INVERTER              | 9   |               | E65,E54,E78,E103,E89,E53,E82,    |
|      |      |              |             |         |                                 |     | CONT          | E126,E148                        |
| 19   | 19   |              | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN        | 4   |               | E106,E130,E129,E140              |
| 20   | 20   |              | 1921309-01  |         | 74F10 NAND GATE,TRIPLE,3-I      | 1   |               | E104                             |
| 21   | 21   |              | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN      | 1   |               | E9                               |
| 22   | 22   |              | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN       | 2   |               | E107,E102                        |
| 23   | 23   |              | 1921313-01  |         | 74F64 AND OR INVERT GATE,4-     | 3   |               | E92,E142,E143                    |
| 24   | 24   |              | 1921314-01  |         | 74F74 FF-D,DUAL,POS.,EDGE       | 1   |               | E118                             |
| 25   | 25   |              | 1921316-01  |         | 74F138 DECODER/DEMUX,1-OF-8     | 3   |               | E105,E146,E141                   |
| 26   | 26   |              | 1921318-01  |         | 74F151 MUX,8-IN                 | 5   |               | E124,E101,E100,E87,E74           |
| 27   | 27   |              | 1921319-01  |         | 74F153 MUX,DUAL,4-IN            | 19  |               | E77,E90,E8,E28,E18,E40,E80,E69,  |
|      |      |              |             |         |                                 |     | CONT          | E55,E68,E83,E94,E96,E95,E81,E44, |
|      |      |              |             |         |                                 |     | CONT          | E6,E31,E43                       |

| REVISION HISTORY |            |     | BASIC PART NO: M7467    |  | DRN: S.MANSOR            |  | DATE: 14-OCT-83      |  | D I G I T A             |  |  |  |
|------------------|------------|-----|-------------------------|--|--------------------------|--|----------------------|--|-------------------------|--|--|--|
| ENG              | ECO NUMBER | REV | SECTION A OF A          |  | CHK'D: E.T.GERRY         |  | DATE: 14-OCT-83      |  | TITLE PARTS LIST        |  |  |  |
| ---              | INITIAL    | A   | SECTION VARIATION INDEX |  | DES.ENG: KEITH McLAREN   |  | DATE: 14-OCT-83      |  | DATA ALIGNER (DBP)      |  |  |  |
|                  |            |     | (A) 00                  |  | RESP.ENG.: KEITH McLAREN |  | DATE: 14-OCT-83      |  | DOCUMENT NUMBER         |  |  |  |
|                  |            |     | (B)                     |  | MFG.ENG.: M.KRYSAK       |  | DATE: 14-OCT-83      |  | SIZE CODE NUMBER REV    |  |  |  |
|                  |            |     | (C)                     |  | ASSEMBLY NUMBER:         |  | TOP DOCUMENT NUMBER: |  | FILE NAME:              |  |  |  |
|                  |            |     | (D)                     |  | E-UA-M7467-0-0           |  | 8-DD-M7467-0-0       |  | Z3945A.PLS              |  |  |  |
|                  |            |     | (E)                     |  |                          |  |                      |  | RELEASE DATE: 14-OCT-83 |  |  |  |
|                  |            |     | (F)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |            |     | (G)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |            |     | (H)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |            |     | (I)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |            |     | (J)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |            |     | (K)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |            |     | (L)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |            |     | (M)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |            |     | (N)                     |  |                          |  |                      |  |                         |  |  |  |

THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS.

AUTOMATED BY PRTLST.5R(55)

PARTS LIST

SHEET A2 OF A2

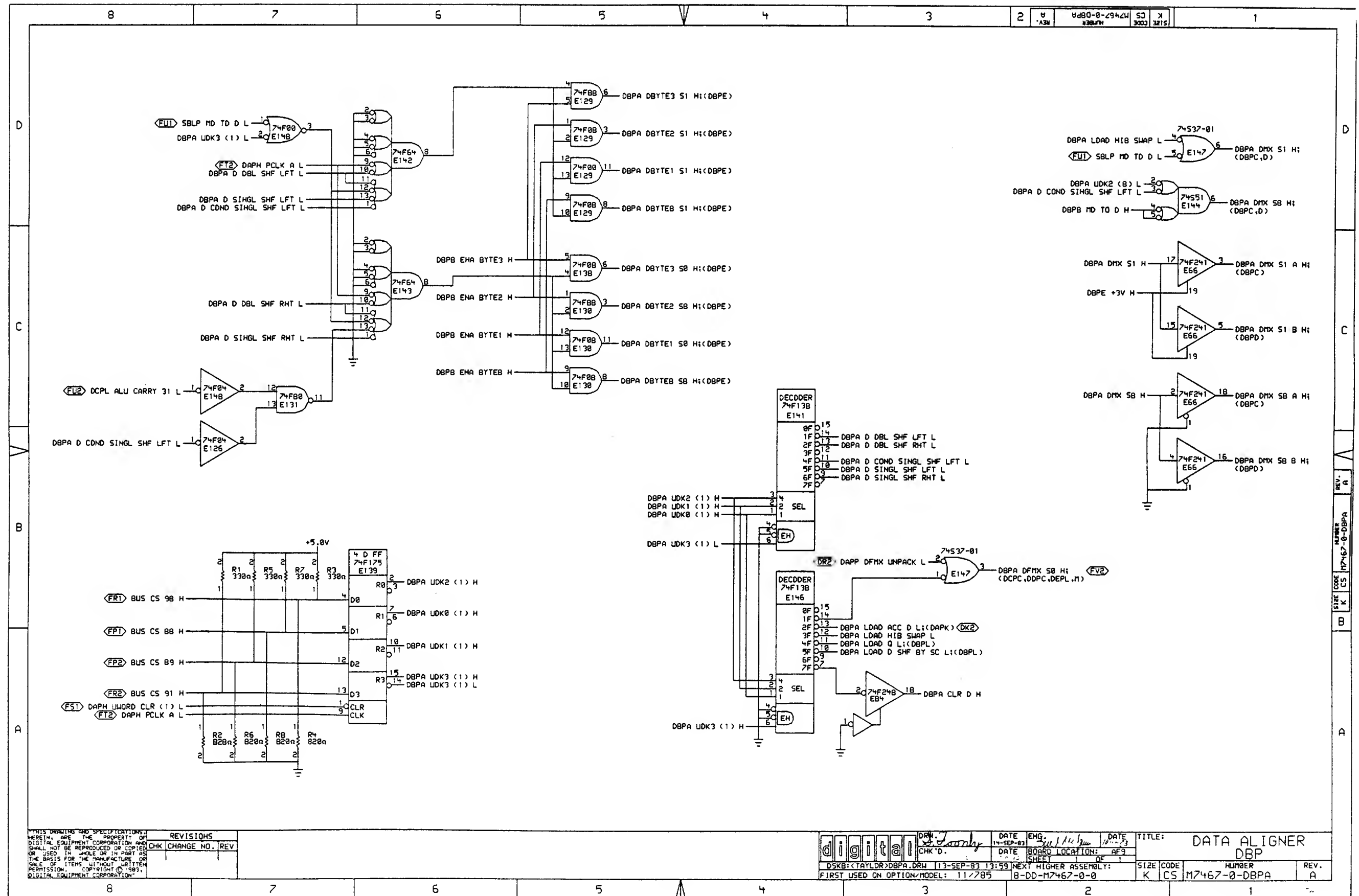
| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                      | QTY | PER VARIATION | REFERENCE DESIGNATOR             |
|------|------|--------------|-------------|---------|----------------------------------|-----|---------------|----------------------------------|
|      |      |              |             |         | VARIATION REVISION LEVEL:        | 00  |               |                                  |
|      |      |              |             |         |                                  | A1  |               |                                  |
| 28   | 28   |              | 1921321-01  |         | 74F158 MUX,QUAD,2-IN             | 2   |               | E61,E128                         |
| 29   | 29   |              | 1921324-01  |         | 74F175 FF-D,QUAD                 | 1   |               | E139                             |
| 30   | 30   |              | 1921327-01  |         | 74F194 SHIFT REG,UNIV,8IDIR      | 8   |               | E4,E17,E64,E116,E63,E117,E27,E5  |
| 31   | 31   |              | 1921332-01  |         | 74F280 PARITY GEN/CHECK,9-B      | 4   |               | E21,E29,E75,E115                 |
| 32   | 32   |              | 1921334-01  |         | 74F350 SHIFTER,4-8IT             | 52  |               | E14,E16,E38,E49,E121,E134,E132,  |
|      |      |              |             |         |                                  |     | CONT          | E109,E3,E15,E24,E25,E135,E133,   |
|      |      |              |             |         |                                  |     | CONT          | E136,E97,E1,E26,E36,E37,E110,    |
|      |      |              |             |         |                                  |     | CONT          | E58,E57,E13,E50,E23,E2,E122,E56, |
|      |      |              |             |         |                                  |     | CONT          | E70,E35,E60,E99,E150,E120,E108,  |
|      |      |              |             |         |                                  |     | CONT          | E85,E59,E137,E111,E86,E72,E123,  |
|      |      |              |             |         |                                  |     | CONT          | E73,E22,E10,E45,E98,E46,E32,E71, |
|      |      |              |             |         |                                  |     | CONT          | E47                              |
| 33   | 33   |              | 1921417-01  |         | 74F521 COMPARATOR,IDENTITY,      | 4   |               | E88,E42,E20,E127                 |
| 34   | 34   |              | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL QUA | 1   |               | E113                             |
| 35   | 35   |              | 9000024-01  |         | EYELEI,ROLLED 0.1210DX0.192      | 12  |               |                                  |
| 36   | 36   |              | 9107688-55  |         | WIRE(WRAP) 24AWG KYNAR UL13      | A/R |               |                                  |

37 NOTE: SPARE I.C. LOCATIONS ARE:E7,E11,E12,E19,E30,E33,E34,E41,  
38 NOTE: E67,E93,E112,E138,E145,E151

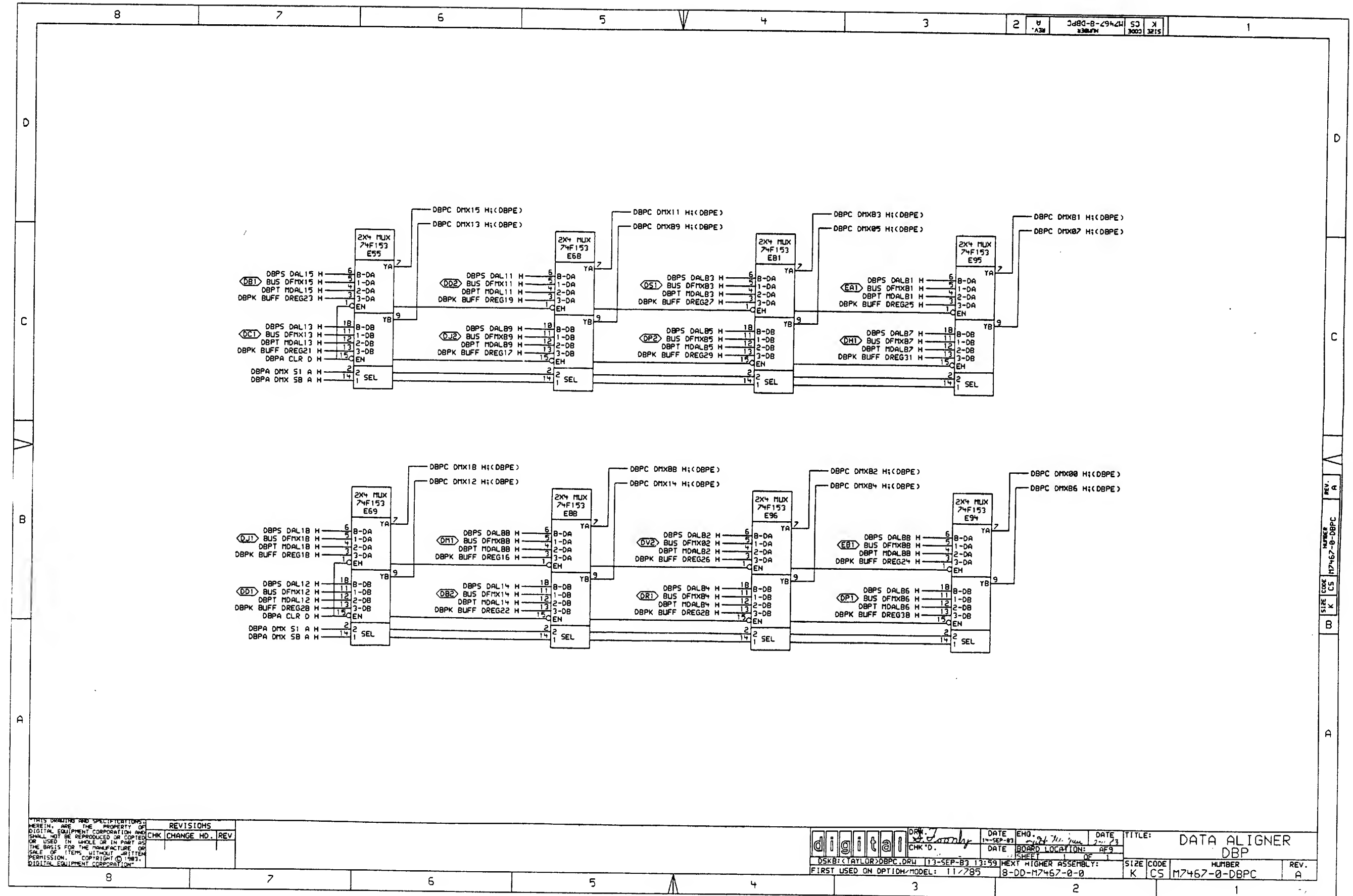
|   |   |   |   |   |   |   |       |                    |                |      |      |                 |     |
|---|---|---|---|---|---|---|-------|--------------------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE | DATA ALIGNER (DBP) | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   |       |                    |                | K    | PL   | M7467-0-DBP     | A   |



| SIGNAL NAME            | PAGE NUMBER(S) |
|------------------------|----------------|
| 1. <u>Signal 1</u>     | 1              |
| 2. <u>Signal 2</u>     | 2              |
| 3. <u>Signal 3</u>     | 3              |
| 4. <u>Signal 4</u>     | 4              |
| 5. <u>Signal 5</u>     | 5              |
| 6. <u>Signal 6</u>     | 6              |
| 7. <u>Signal 7</u>     | 7              |
| 8. <u>Signal 8</u>     | 8              |
| 9. <u>Signal 9</u>     | 9              |
| 10. <u>Signal 10</u>   | 10             |
| 11. <u>Signal 11</u>   | 11             |
| 12. <u>Signal 12</u>   | 12             |
| 13. <u>Signal 13</u>   | 13             |
| 14. <u>Signal 14</u>   | 14             |
| 15. <u>Signal 15</u>   | 15             |
| 16. <u>Signal 16</u>   | 16             |
| 17. <u>Signal 17</u>   | 17             |
| 18. <u>Signal 18</u>   | 18             |
| 19. <u>Signal 19</u>   | 19             |
| 20. <u>Signal 20</u>   | 20             |
| 21. <u>Signal 21</u>   | 21             |
| 22. <u>Signal 22</u>   | 22             |
| 23. <u>Signal 23</u>   | 23             |
| 24. <u>Signal 24</u>   | 24             |
| 25. <u>Signal 25</u>   | 25             |
| 26. <u>Signal 26</u>   | 26             |
| 27. <u>Signal 27</u>   | 27             |
| 28. <u>Signal 28</u>   | 28             |
| 29. <u>Signal 29</u>   | 29             |
| 30. <u>Signal 30</u>   | 30             |
| 31. <u>Signal 31</u>   | 31             |
| 32. <u>Signal 32</u>   | 32             |
| 33. <u>Signal 33</u>   | 33             |
| 34. <u>Signal 34</u>   | 34             |
| 35. <u>Signal 35</u>   | 35             |
| 36. <u>Signal 36</u>   | 36             |
| 37. <u>Signal 37</u>   | 37             |
| 38. <u>Signal 38</u>   | 38             |
| 39. <u>Signal 39</u>   | 39             |
| 40. <u>Signal 40</u>   | 40             |
| 41. <u>Signal 41</u>   | 41             |
| 42. <u>Signal 42</u>   | 42             |
| 43. <u>Signal 43</u>   | 43             |
| 44. <u>Signal 44</u>   | 44             |
| 45. <u>Signal 45</u>   | 45             |
| 46. <u>Signal 46</u>   | 46             |
| 47. <u>Signal 47</u>   | 47             |
| 48. <u>Signal 48</u>   | 48             |
| 49. <u>Signal 49</u>   | 49             |
| 50. <u>Signal 50</u>   | 50             |
| 51. <u>Signal 51</u>   | 51             |
| 52. <u>Signal 52</u>   | 52             |
| 53. <u>Signal 53</u>   | 53             |
| 54. <u>Signal 54</u>   | 54             |
| 55. <u>Signal 55</u>   | 55             |
| 56. <u>Signal 56</u>   | 56             |
| 57. <u>Signal 57</u>   | 57             |
| 58. <u>Signal 58</u>   | 58             |
| 59. <u>Signal 59</u>   | 59             |
| 60. <u>Signal 60</u>   | 60             |
| 61. <u>Signal 61</u>   | 61             |
| 62. <u>Signal 62</u>   | 62             |
| 63. <u>Signal 63</u>   | 63             |
| 64. <u>Signal 64</u>   | 64             |
| 65. <u>Signal 65</u>   | 65             |
| 66. <u>Signal 66</u>   | 66             |
| 67. <u>Signal 67</u>   | 67             |
| 68. <u>Signal 68</u>   | 68             |
| 69. <u>Signal 69</u>   | 69             |
| 70. <u>Signal 70</u>   | 70             |
| 71. <u>Signal 71</u>   | 71             |
| 72. <u>Signal 72</u>   | 72             |
| 73. <u>Signal 73</u>   | 73             |
| 74. <u>Signal 74</u>   | 74             |
| 75. <u>Signal 75</u>   | 75             |
| 76. <u>Signal 76</u>   | 76             |
| 77. <u>Signal 77</u>   | 77             |
| 78. <u>Signal 78</u>   | 78             |
| 79. <u>Signal 79</u>   | 79             |
| 80. <u>Signal 80</u>   | 80             |
| 81. <u>Signal 81</u>   | 81             |
| 82. <u>Signal 82</u>   | 82             |
| 83. <u>Signal 83</u>   | 83             |
| 84. <u>Signal 84</u>   | 84             |
| 85. <u>Signal 85</u>   | 85             |
| 86. <u>Signal 86</u>   | 86             |
| 87. <u>Signal 87</u>   | 87             |
| 88. <u>Signal 88</u>   | 88             |
| 89. <u>Signal 89</u>   | 89             |
| 90. <u>Signal 90</u>   | 90             |
| 91. <u>Signal 91</u>   | 91             |
| 92. <u>Signal 92</u>   | 92             |
| 93. <u>Signal 93</u>   | 93             |
| 94. <u>Signal 94</u>   | 94             |
| 95. <u>Signal 95</u>   | 95             |
| 96. <u>Signal 96</u>   | 96             |
| 97. <u>Signal 97</u>   | 97             |
| 98. <u>Signal 98</u>   | 98             |
| 99. <u>Signal 99</u>   | 99             |
| 100. <u>Signal 100</u> | 100            |

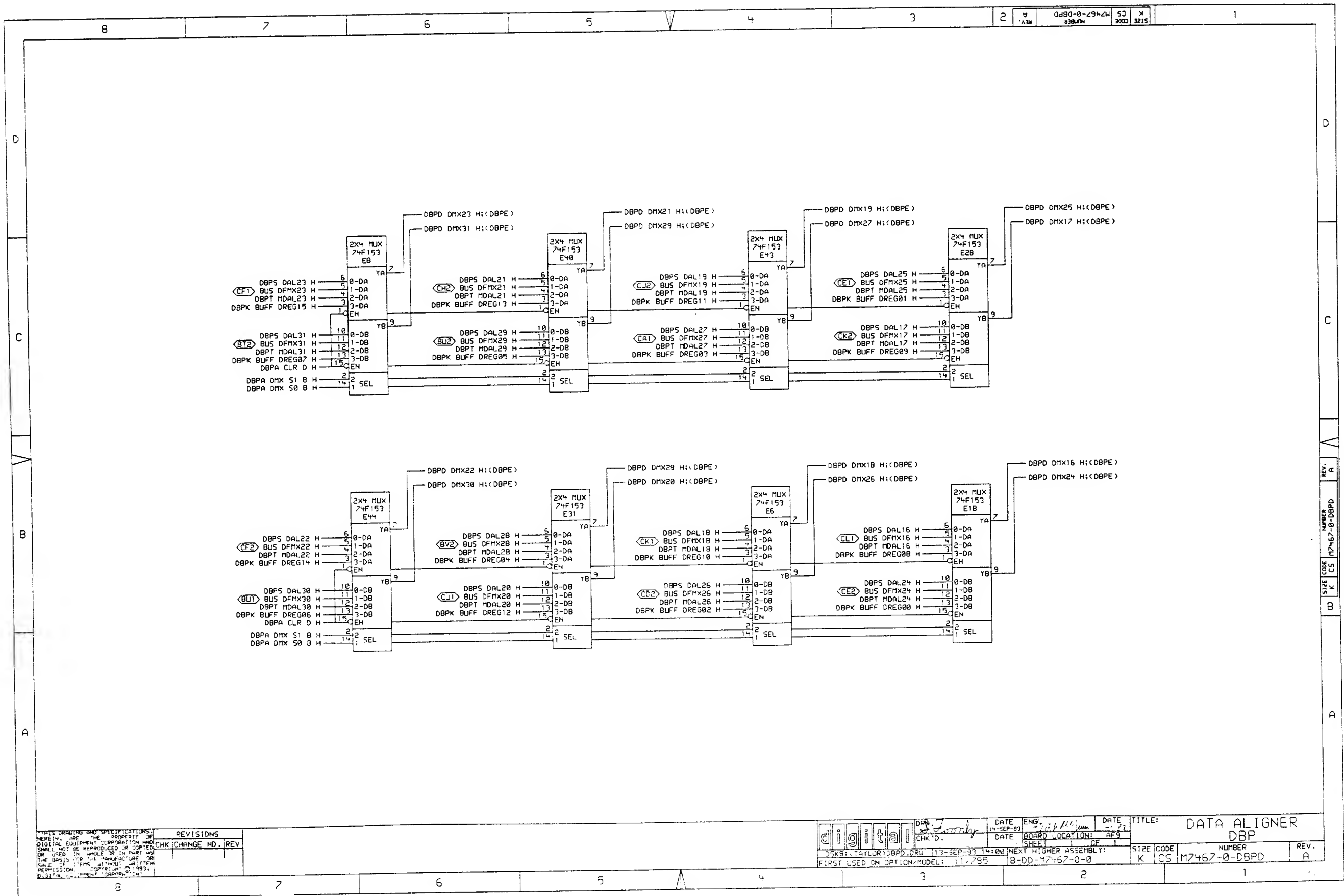






| REVISIONS |        |     |      |
|-----------|--------|-----|------|
| CHK       | CHANGE | MD. | REV. |
|           |        |     |      |

|                                       |           |                       |           |                  |
|---------------------------------------|-----------|-----------------------|-----------|------------------|
| digital                               | DATE      | ENG.                  | DATE      | TITLE:           |
|                                       | 14-SEP-83 |                       | 14-SEP-83 | DATA ALIGNER DBP |
| CHK'D.                                | DATE      | BOARD LOCATION:       |           |                  |
|                                       |           |                       |           |                  |
| DSK: (TAYLOR)DBP.DRW 113-SEP-83 13:59 |           | NEXT HIGHER ASSEMBLY: |           |                  |
| FIRST USED ON OPTION MODEL: 11785     |           | 8-DD-M7467-0-0        |           |                  |
| SIZE                                  | CODE      | NUMBER                |           | REV.             |
| K                                     | CS        | M7467-0-DBPC          |           | A                |



| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |
|           |            |     |

|                                       |       |           |      |                       |                |        |                  |      |      |              |      |
|---------------------------------------|-------|-----------|------|-----------------------|----------------|--------|------------------|------|------|--------------|------|
| digital                               | DATE  | 14-SEP-83 | ENG  | DATE                  | 14-SEP-83      | TITLE  | DATA ALIGNER DBP |      |      |              |      |
|                                       | CHK'D |           | DATE |                       | BOARD LOCATION | AF9    |                  |      |      |              |      |
|                                       |       |           |      |                       | SHEET          | 1 OF 1 |                  |      |      |              |      |
| DSK8: TAYLOR\DBP.DRW 113-SEP-83 14:00 |       |           |      | NEXT HIGHER ASSEMBLY: |                |        |                  | SIZE | CODE | NUMBER       | REV. |
| FIRST USED ON OPTION/MODEL: 11-795    |       |           |      | 8-DD-M7467-0-0        |                |        |                  | K    | CS   | M7467-0-DBPD | A    |





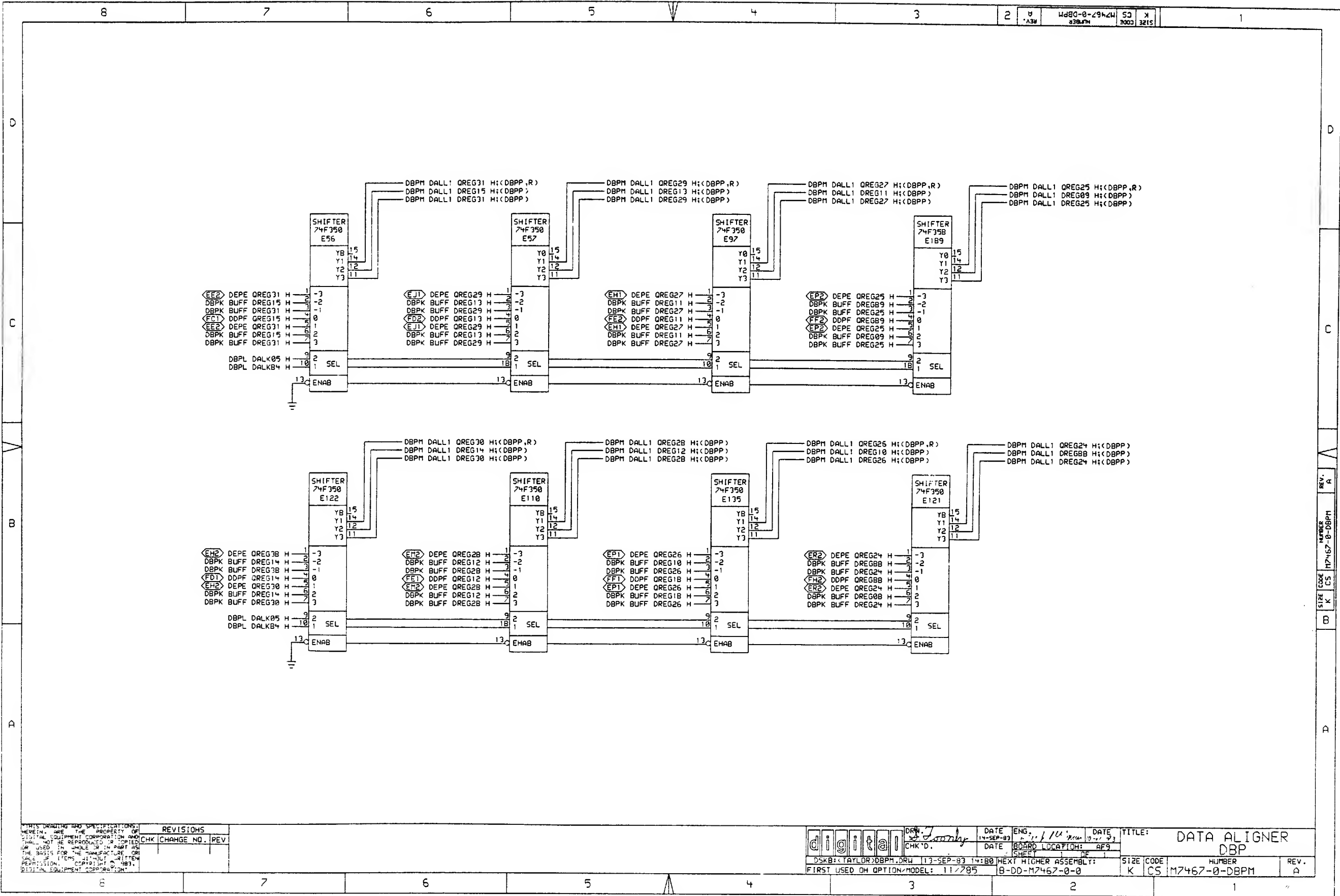


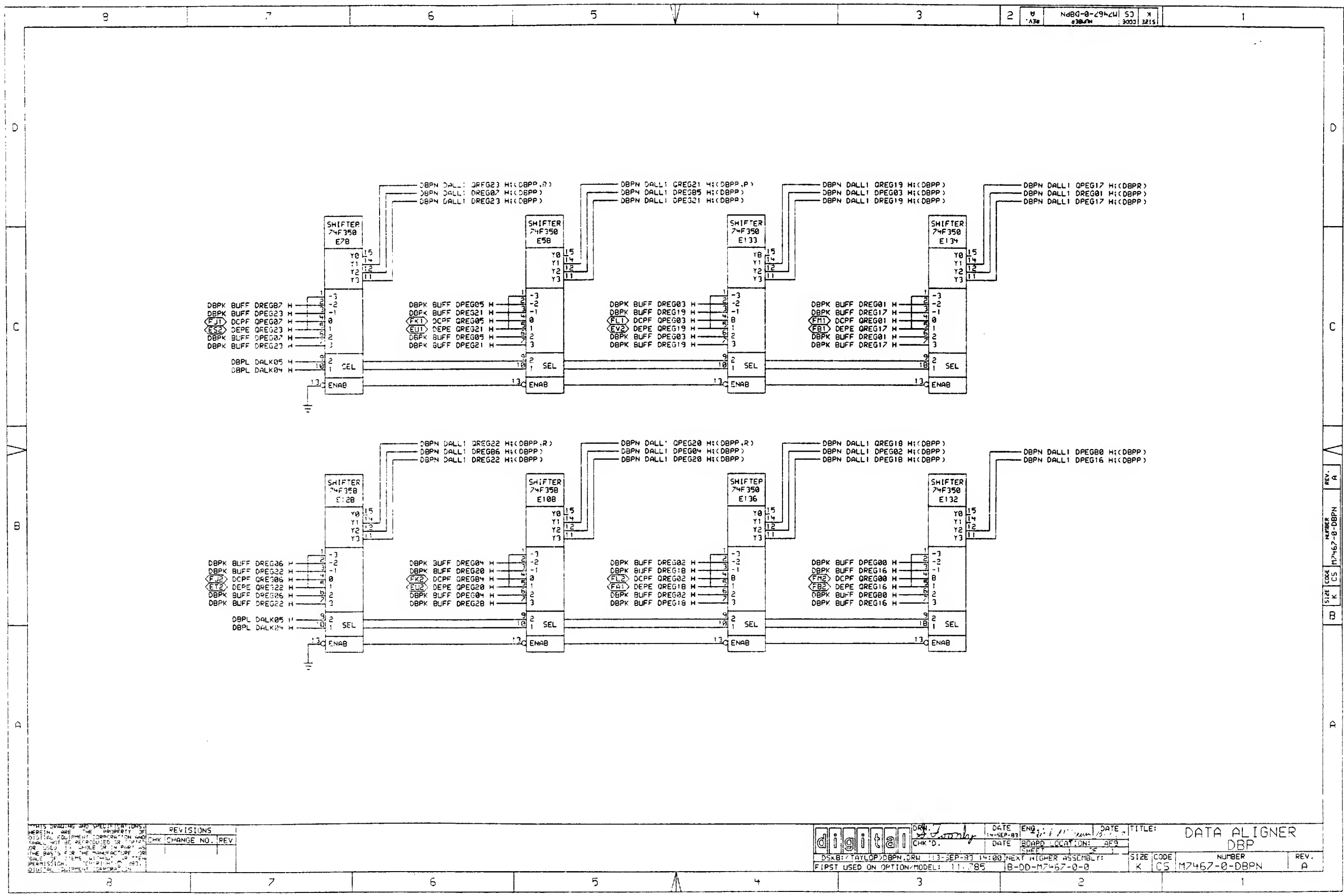






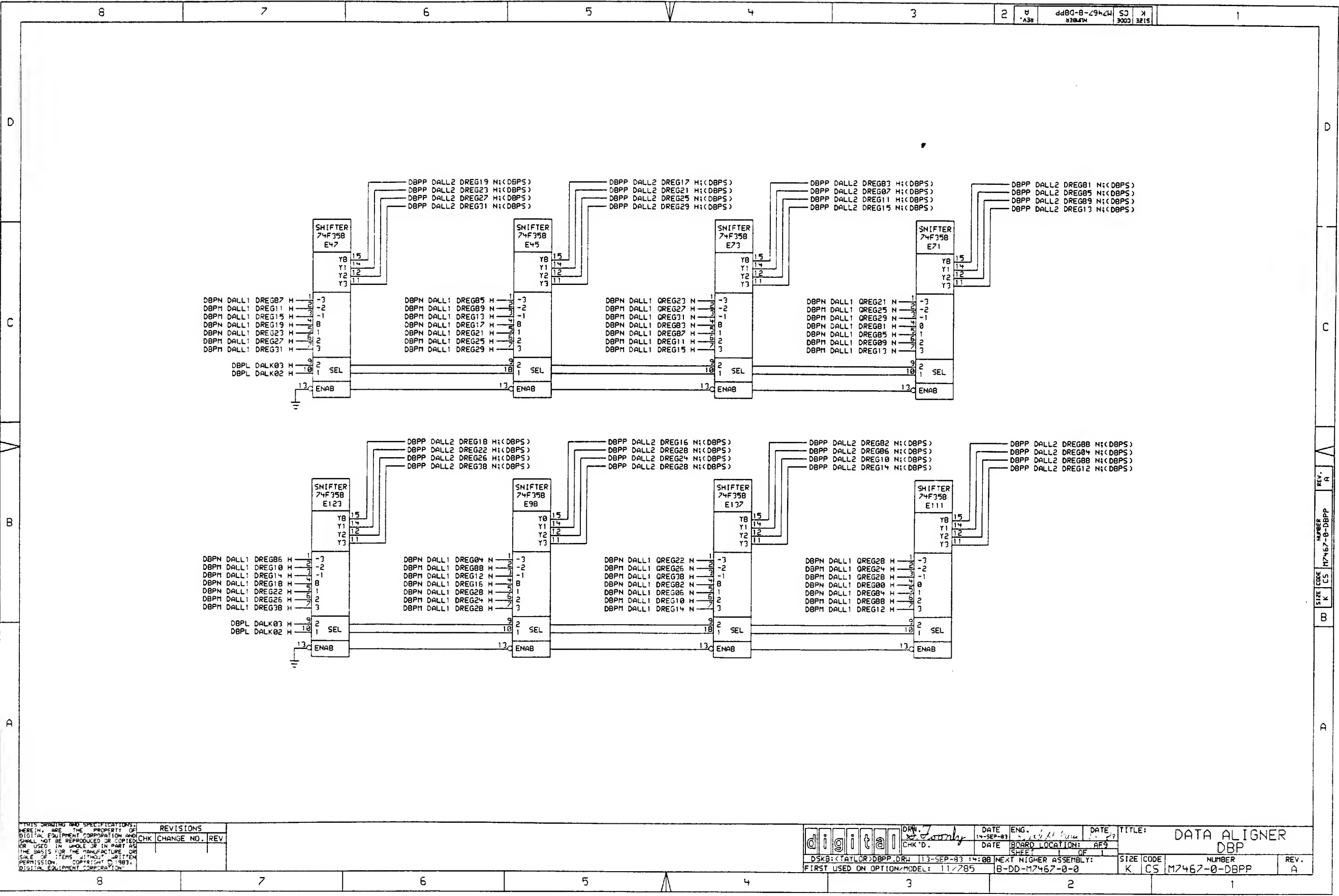






| REVISIONS |                |
|-----------|----------------|
| CHK       | CHANGE NO. REV |
|           |                |
|           |                |

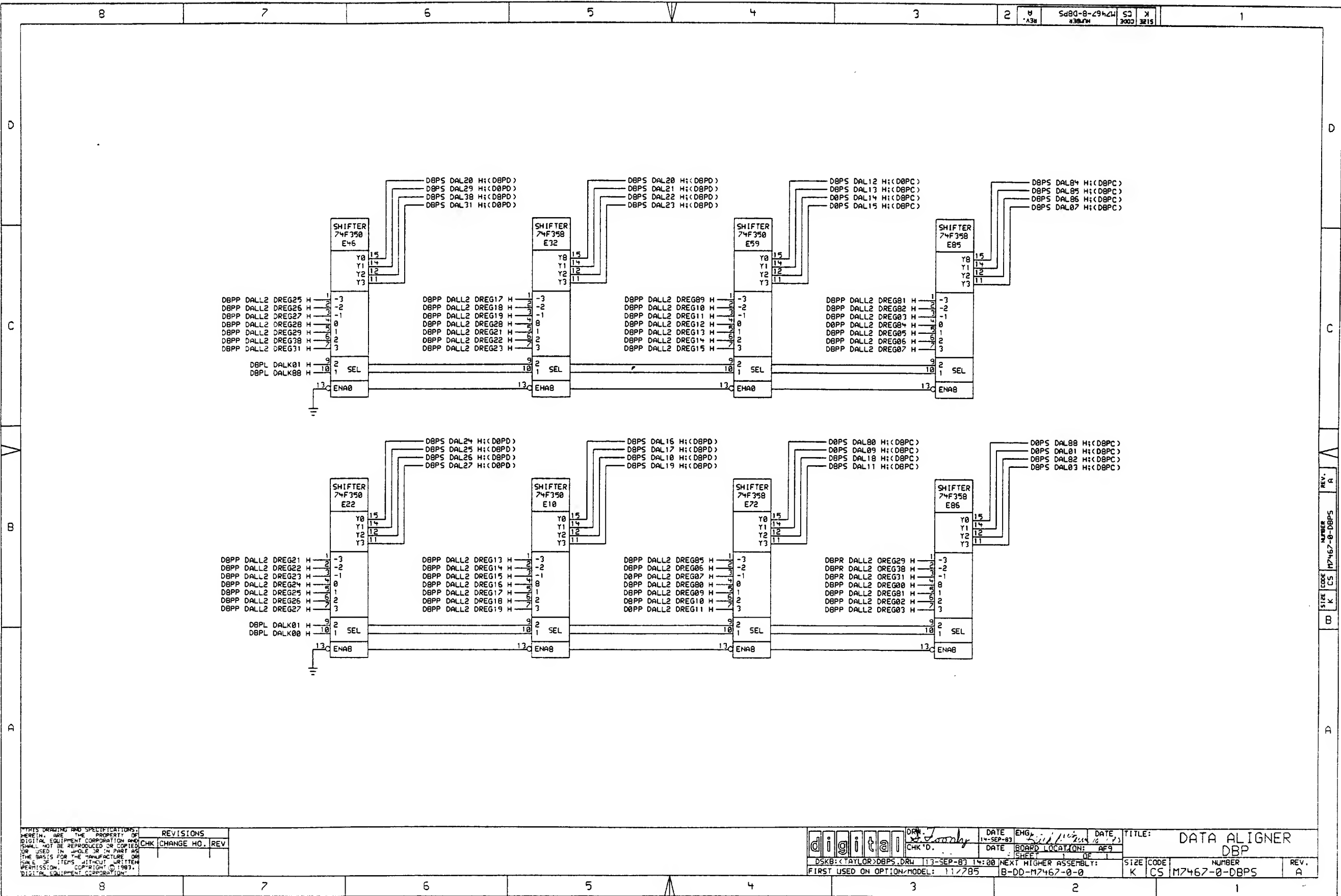
|                             |           |                 |                       |                  |
|-----------------------------|-----------|-----------------|-----------------------|------------------|
| digital                     | DATE      | ENG             | DATE                  | TITLE            |
|                             | 14-SEP-83 |                 |                       | DATA ALIGNER DBP |
| CHK'D                       | DATE      | BOARD LOCATION  |                       |                  |
|                             |           |                 |                       |                  |
| DSAB: TAYLOR/DBP.DRW        | 11-SEP-83 | 14:00           | NEXT HIGHER ASSEMBLY: |                  |
| FIRST USED ON OPTION/MODEL: | 11-785    | 18-00-M7467-0-0 |                       |                  |
| SIZE                        | CODE      | NUMBER          | REV.                  |                  |
| K                           | CS        | M7467-0-DBPN    | A                     |                  |



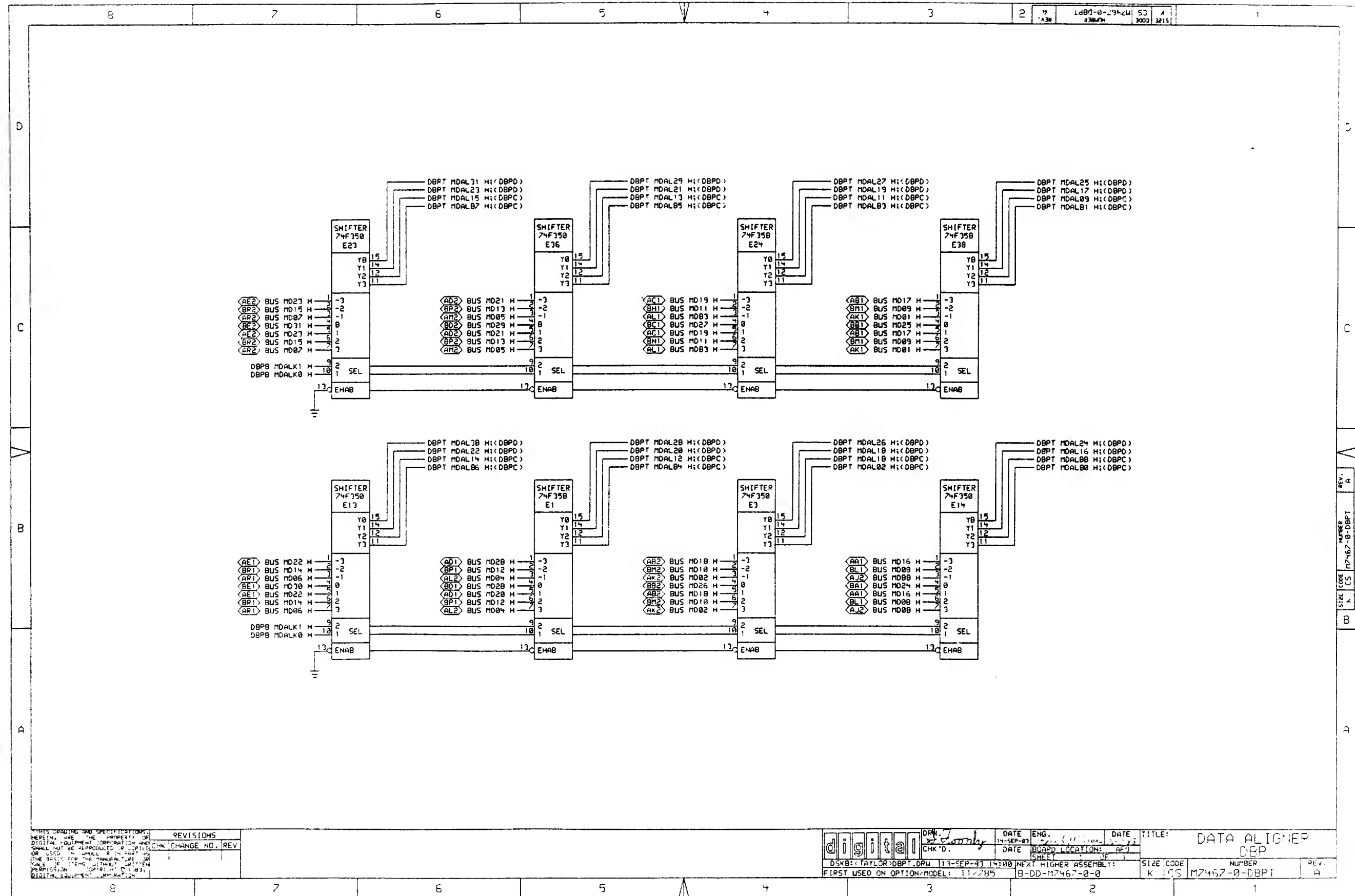
| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |
|           |            |     |

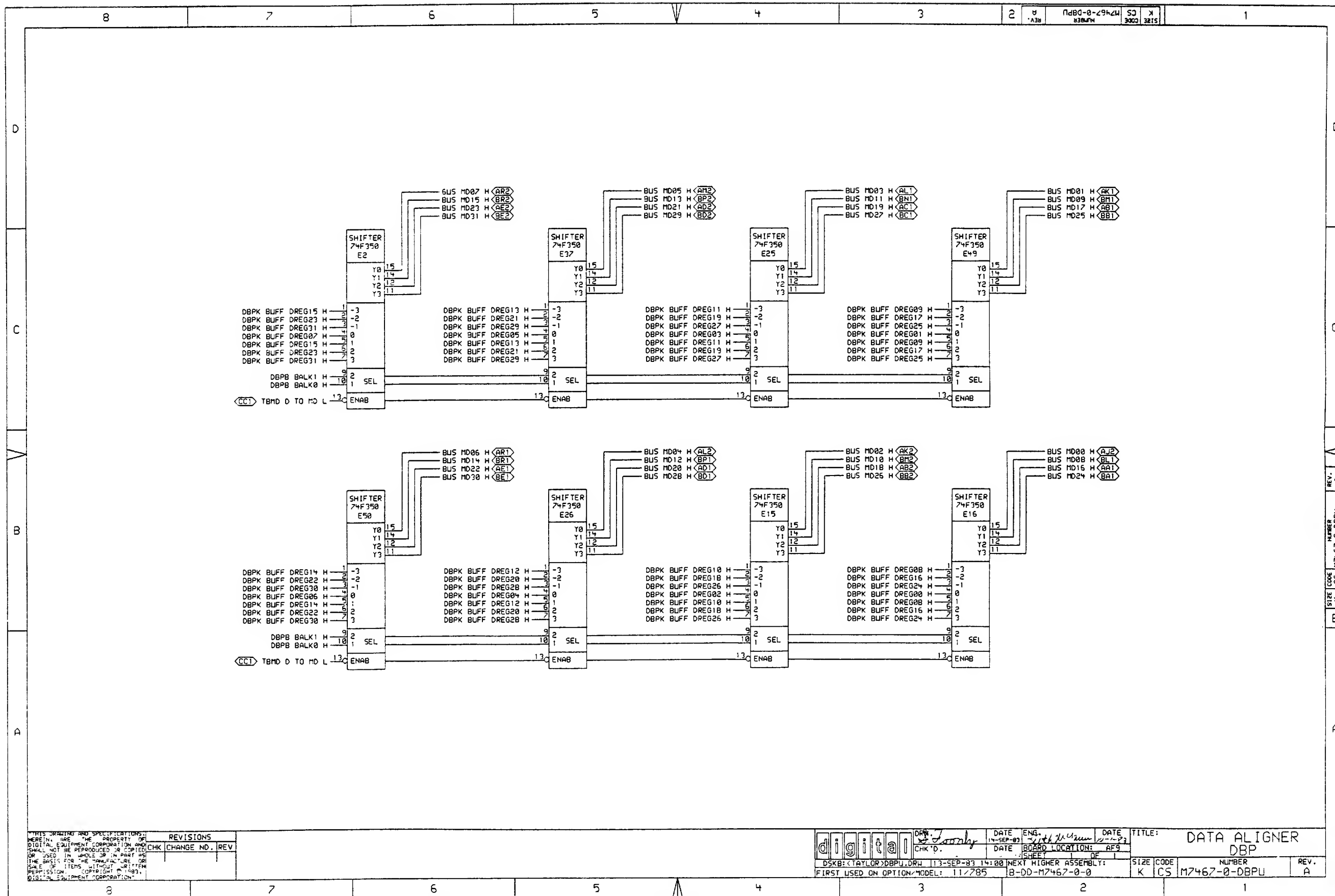
|                                    |      |              |                 |      |              |
|------------------------------------|------|--------------|-----------------|------|--------------|
| digital                            |      | DATE         | ENG.            | DATE | TITLE:       |
| CHK'D.                             |      | 14-SEP-83    |                 |      | DATA ALIGNER |
| DSKB: <TAYLOR>DBPP.DRW             |      | DATE         | BOARD LOCATION: | AF9  | DBP          |
| FIRST USED ON OPTION/MODEL: 11/285 |      | SHEET        | OF              | 1    |              |
| NEXT HIGHER ASSEMBLY:              |      |              |                 |      |              |
| B-DD-M7467-0-0                     |      |              |                 |      |              |
| SIZE                               | CODE | NUMBER       | REV.            |      |              |
| K                                  | CS   | M7467-0-DBPP | A               |      |              |

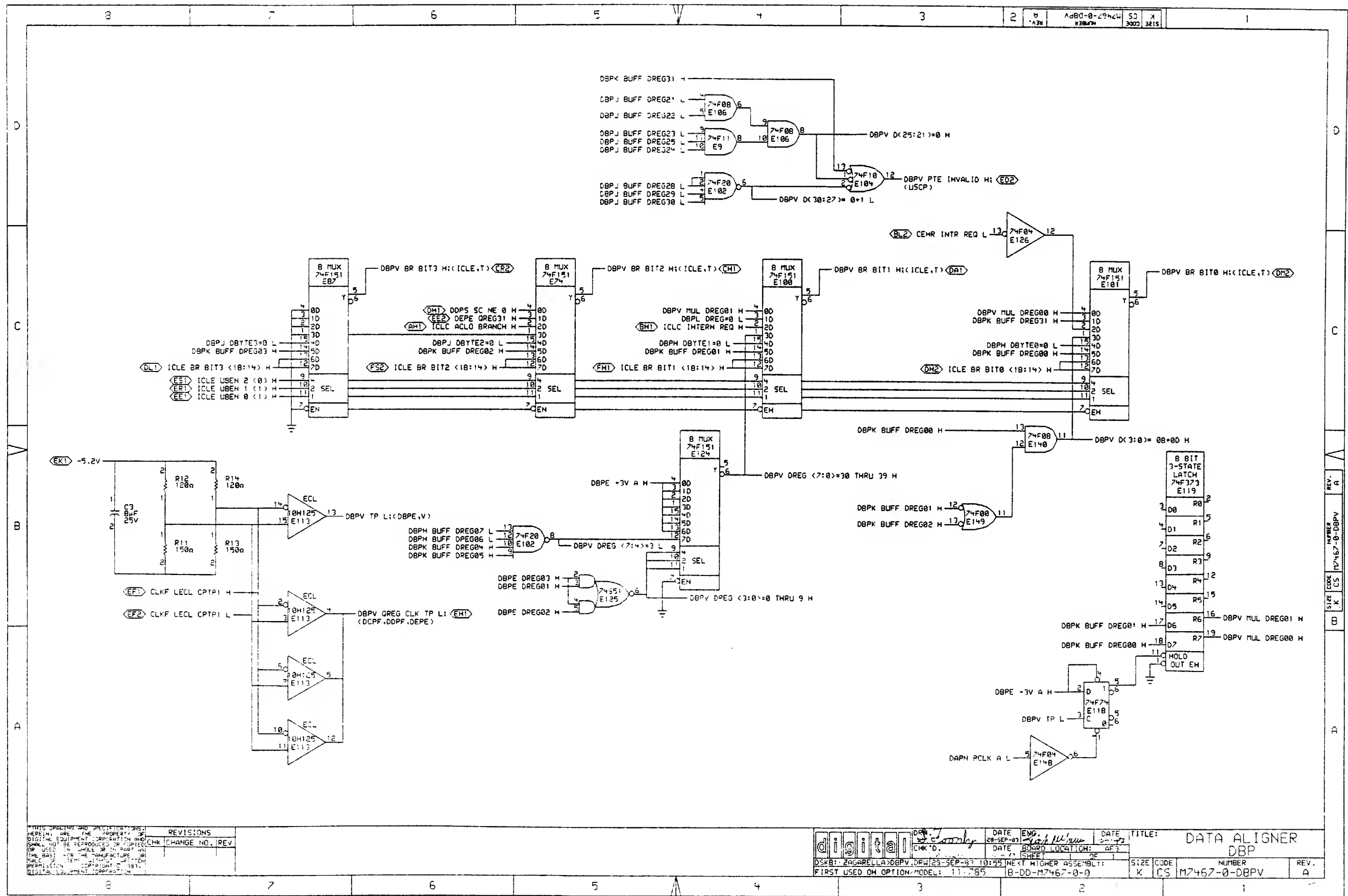


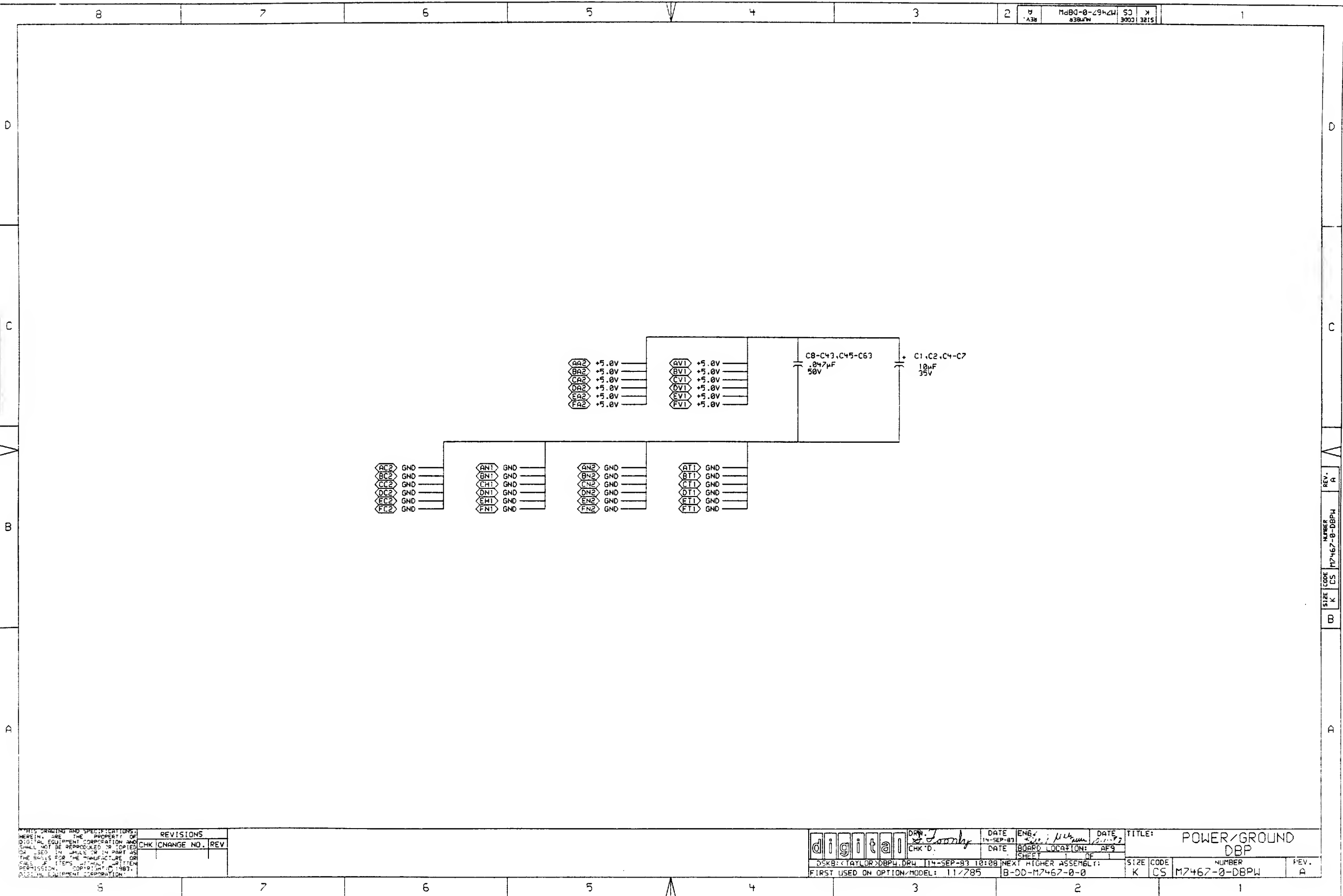





87654321
DCBA













REV.0

NUMBER0-0-694LW

CODEDD

SIZEB

| DRAWING NO.       | NO. OF SHTS. | PART NO.   | DESCRIPTION           | REVISIONS |    |       |         |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------|--------------|------------|-----------------------|-----------|----|-------|---------|------|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                   | —            | M7469-00   | PART REVISION(DDP)    | A1        | B1 | C1    | C2      |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E-UA-M7469-0-0    | 4            |            | UNIT ASSEMBLY         | A         | B  | C     | —       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-PL-M7469-0-DBP  | 2            |            | PARTS LIST            | A         | A  | A     | —       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D-CS-M7469-0-0    | 20           |            | SCHEMATIC             | A         | B  | C     | —       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-PC-M7469-0-DBC  | —            |            | P.C. DESIGN DATA BASE | A         | A  | A     | —       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   | —            | 5012599-00 | ETCHED BOARD          | C         | C  | C     | —       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   |              | 5017503-01 | ETCHED BOARD          | —         | —  | —     | A1      |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-PC-M7469-0-DBI  | —            |            | P.C. DATA BASE        | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B-DD-5017503-0-0  | 1            |            | DRAWING DIRECTORY     | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DBS  | 1            |            | SUDS DATA BASE        | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPA | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPB | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPC | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPD | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPE | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPF | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPH | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPJ | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPK | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPL | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPM | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPN | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPP | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPR | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPS | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7469-0-DDPT | 1            |            | SCHEMATIC             | —         | —  | —     | A       |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NOTES:            |              |            |                       | REVISIONS |    | DATE  | CHG NO. | REV. | A | B | C | D |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   |              |            |                       |           |    | 9/83  | INIT.   |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   |              |            |                       |           |    | 2/84  | TW001   |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   |              |            |                       |           |    | 6/84  | TW002   |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   |              |            |                       |           |    | 10/84 | TW003   |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

COPYRIGHT© 1983 DIGITAL EQUIPMENT CORPORATION

digital

USED ON OPTION/MODEL

DRN.9/Barofalo9-23-83

CHK'D9/Barofalo9-23-83

ENG.Keith W. Dunn10-18-83

PROJ.9/Barofalo10-18-83

TITLEDATA PATH 15:08 (DDP)

SIZECODEBDD

NUMBERM7469-0-0

REVD

SHEET1

OF2

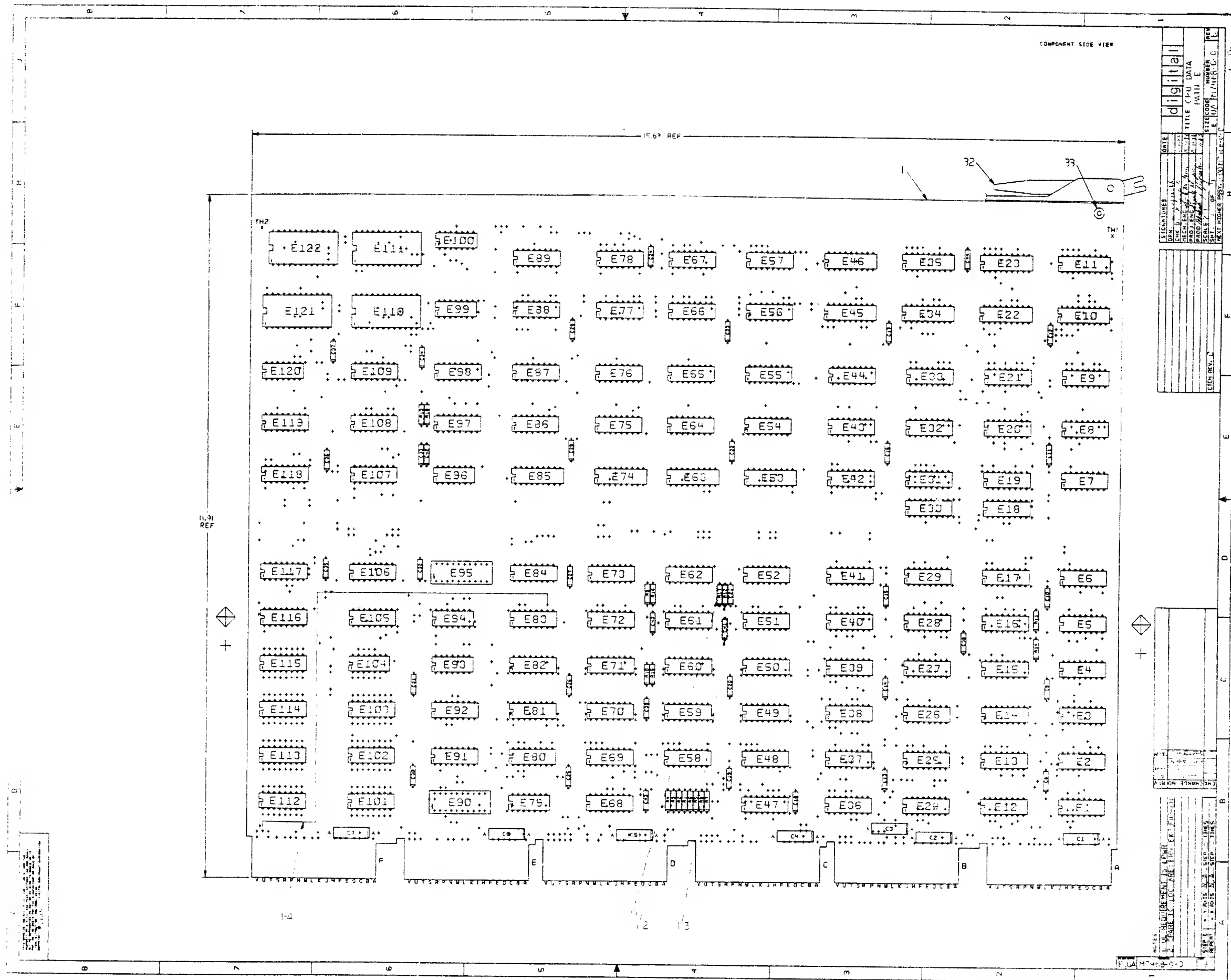






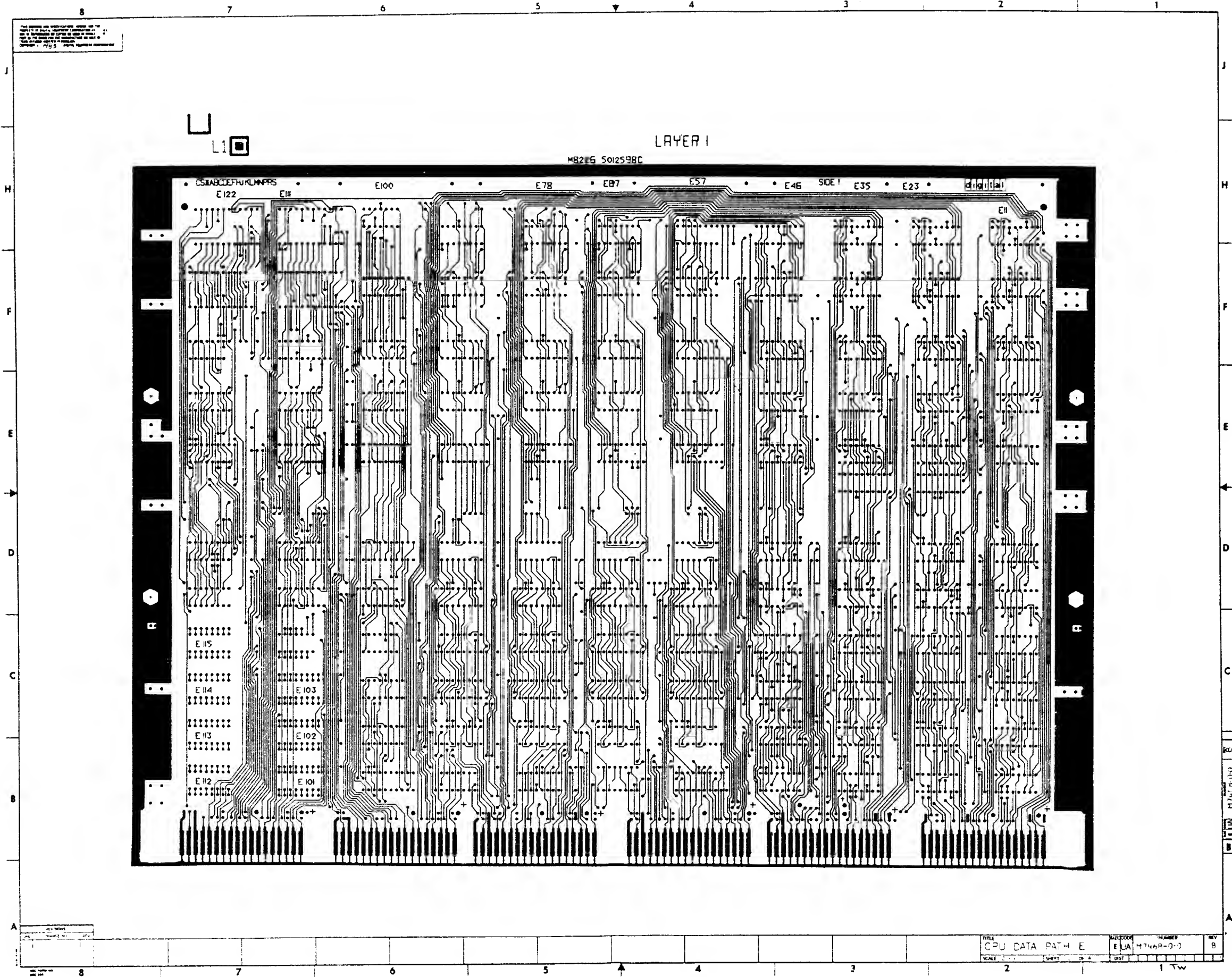
[illegible]

rw



| digital     |          |
|-------------|----------|
| DATE        | 11/11/77 |
| DESIGNED BY | J. J. J. |
| HECKED BY   | J. J. J. |
| PROD. ENG.  | J. J. J. |
| SCHEMATIC   | J. J. J. |
| DATE        | 11/11/77 |
| DESIGNED BY | J. J. J. |
| HECKED BY   | J. J. J. |
| PROD. ENG.  | J. J. J. |
| SCHEMATIC   | J. J. J. |
| DATE        | 11/11/77 |
| DESIGNED BY | J. J. J. |
| HECKED BY   | J. J. J. |
| PROD. ENG.  | J. J. J. |
| SCHEMATIC   | J. J. J. |

|       |  |  |
|-------|--|--|
| NOTES | 1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.  |  |
|       | 2. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  |  |
|       | 3. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  |  |
|       | 4. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  |  |
|       | 5. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  |  |
|       | 6. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  |  |
|       | 7. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  |  |
|       | 8. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  |  |
|       | 9. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  |  |
|       | 10. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED. |  |
|       | 11. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED. |  |
|       | 12. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED. |  |
|       | 13. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED. |  |





8

6

5

4

3

2

J

H

F

E

D

C

B

A

REWORK INSTRUCTIONS ECO #1

COMPONENT DELETES:

I-1 REMOVE R17 (680 OHM RESISTOR)

I-2 REMOVE R12 (330 OHM RESISTOR)

I-3 REMOVE C41 (.047 UF CAP)

WIRE ADD:

I-4 PTH CONNECTED TO I/O PIN F01 TO PTH BELOW AND CONNECTED TO E84 PIN 7

DATE ECO NUMBER REV

TITLE CPU DATA PATH E

SCALE SHEET 1 OF 2

DOCUMENT NUMBER E04M7468-C-0 B



| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                   | QTY | PER VARIATION | REFERENCE DESIGNATOR  |
|------|------|------------------|-------------|---------|-------------------------------|-----|---------------|---|
|      |      |                  |             |         |                               |     |               |   |
|      |      |                  |             |         | VARIATION REVISION LEVEL:     | 00  |               |   |
|      |      |                  |             |         |                               | B1  |               |   |
| 1    | 1    | E-MD-5012598-0-0 | 5012598-00  |         | M8226                         | 1   |               |   |
| 2    | 2    |                  | 1012084-01  |         | 8 MFD 25V +75-10% AL EL       | 7   |               | C1-C7   |
| 3    | 3    |                  | 1012784-00  |         | .047 MFD 50V +80-20% CER      | 36  |               | C8-C40,C42-C44  |
| 4    | 4    |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF          | 4   |               | R1,R3,R6,R8   |
| 5    | 5    |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF          | 4   |               | R2,R4,R5,R7   |
| 6    | 6    |                  | 1300295-00  |         | 330.0 .25 W 5.0 % CF          | 4   |               | R9-R11,R13  |
| 7    | 7    |                  | 1301424-00  |         | 680.0 .25 W 5.0 % CF          | 4   |               | R14-R16,R18   |
| 8    | 8    | BLANK            |             |         | *** THIS ITEM IS NOT USED *** | -   |               |   |
| 9    | 9    |                  | 1921325-01  |         | 74F181 ALU,4-8IT              | 4   |               | E110,E111,E121,E122   |
| 10   | 10   |                  | 1921307-01  |         | 74F04 HEX INVERTER            | 5   |               | E79,E99,E100,E120,E104  |
| 11   | 11   |                  | 1910545-00  |         | 74S112 FF-JK DUAL,EDGE TRIG   | 2   |               | E91,E92   |
| 12   | 12   |                  | 1921321-01  |         | 74F158 MUX,QUAD,2-IN          | 4   |               | E48,E58,E69,E80   |
| 13   | 13   |                  | 1921327-01  |         | 74F194 SHIFT REG,UNIV,8IDIR   | 4   |               | E5,E16,E28,E40  |
| 14   | 14   |                  | 1921319-01  |         | 74F153 MUX,DUAL,4-IN          | 16  |               | E1,E2,E14,E15,E26,E27,E36,E37,<br>E105-E108,E116-E119             |
| 15   | 15   |                  | 1921320-01  |         | 74F157 MUX,QUAD,2-IN          | 12  | CONT          | E6,E7,E17,E19,E29,E31,E41,E42,<br>E51,E61,E72,E83                 |
| 16   | 16   |                  | 1921318-01  |         | 74F151 MUX,8-IN               | 16  | CONT          | E8,E9,E20,E21,E32,E33,E43,E44,<br>E54,E55,E64,E65,E75,E76,E86,E87 |
| 17   | 17   |                  | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL  | 2   | CONT          | E47,E68   |
| 18   | 18   |                  | 1921330-01  |         | 74F257 MUX,QUAD,2-IN          | 8   |               | E3,E4,E38,E39,E57,E67,E78,E89                                     |
| 19   | 19   |                  | 1921316-01  |         | 74F138 DECODER/DEMUX,1-OF-8   | 2   |               | E18,E30   |
| 20   | 20   |                  | 1911712-00  |         | 74S51 AND-OR GATE-INVERT D    | 1   |               | E93   |
| 21   | 21   |                  | 1911983-00  |         | 74S133 NAND GATE-POSITIVE 1   | 1   |               | E98   |
| 22   | 22   |                  | 1921326-01  |         | 74F182 CARRY LOOKAHEAD GEN.   | 1   |               | E109  |
| 23   | 23   |                  | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN      | 1   |               | E94   |
| 24   | 24   |                  | 1912586-01  |         | 85S68A REGISTER,16X4 EDGE T   | 12  |               | E10,E11,E22,E23,E34,E35,E45,E46,<br>E53,E63,E74,E85               |
| 25   | 25   |                  | 1921329-01  |         | 74F253 MUX,DUAL,4-IN          | 1   | CONT          | E97   |
| 26   | 26   |                  | 1921334-01  |         | 74F350 SHIFTER,4-8IT          | 4   |               | E56,E66,E77,E88   |

| REVISION HISTORY |             |     | BASIC PART NO: M7468    |  | DRN: S.MANSOR            |  | DATE: 17-OCT-83      |  | D I G I T A L           |  |  |  |
|------------------|-------------|-----|-------------------------|--|--------------------------|--|----------------------|--|-------------------------|--|--|--|
| ENG:             | ECO NUMBER  | REV | SECTION A OF A          |  |                          |  |                      |  | TITLE PARTS LIST        |  |  |  |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  | CHK'D: T.MCCULLOUGH      |  | DATE: 17-OCT-83      |  | D.E.P.                  |  |  |  |
| KM               | M7468-TW001 | 8   | (A) 00                  |  |                          |  |                      |  |                         |  |  |  |
|                  |             |     | (B)                     |  | DES.ENG: KEITH MCLAREN   |  | DATE: 17-OCT-83      |  | DOCUMENT NUMBER         |  |  |  |
|                  |             |     | (C)                     |  |                          |  |                      |  | SIZE CODE NUMBER REV    |  |  |  |
|                  |             |     | (D)                     |  | RESP.ENG.: KEITH MCLAREN |  | DATE: 17-OCT-83      |  | K PL M7468-0-DBP B      |  |  |  |
|                  |             |     | (E)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |             |     | (F)                     |  | MFG.ENG.: M.KRYSAK       |  | DATE: 17-OCT-83      |  | RELEASE DATE: 16-JUL-84 |  |  |  |
|                  |             |     | (G)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |             |     | (H)                     |  | ASSEMBLY NUMBER:         |  | TOP DOCUMENT NUMBER: |  | FILE NAME: EDIT #       |  |  |  |
|                  |             |     | (I)                     |  | E-UA-M7468-0-0           |  | 8-DD-M7468-0-0       |  | Z3947B.PLS 3            |  |  |  |
|                  |             |     | (J)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |             |     | (K)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |             |     | (L)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |             |     | (M)                     |  |                          |  |                      |  |                         |  |  |  |
|                  |             |     | (N)                     |  |                          |  |                      |  |                         |  |  |  |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."



AUTOMATED BY PRTLST,5R(55)

PARTS LIST

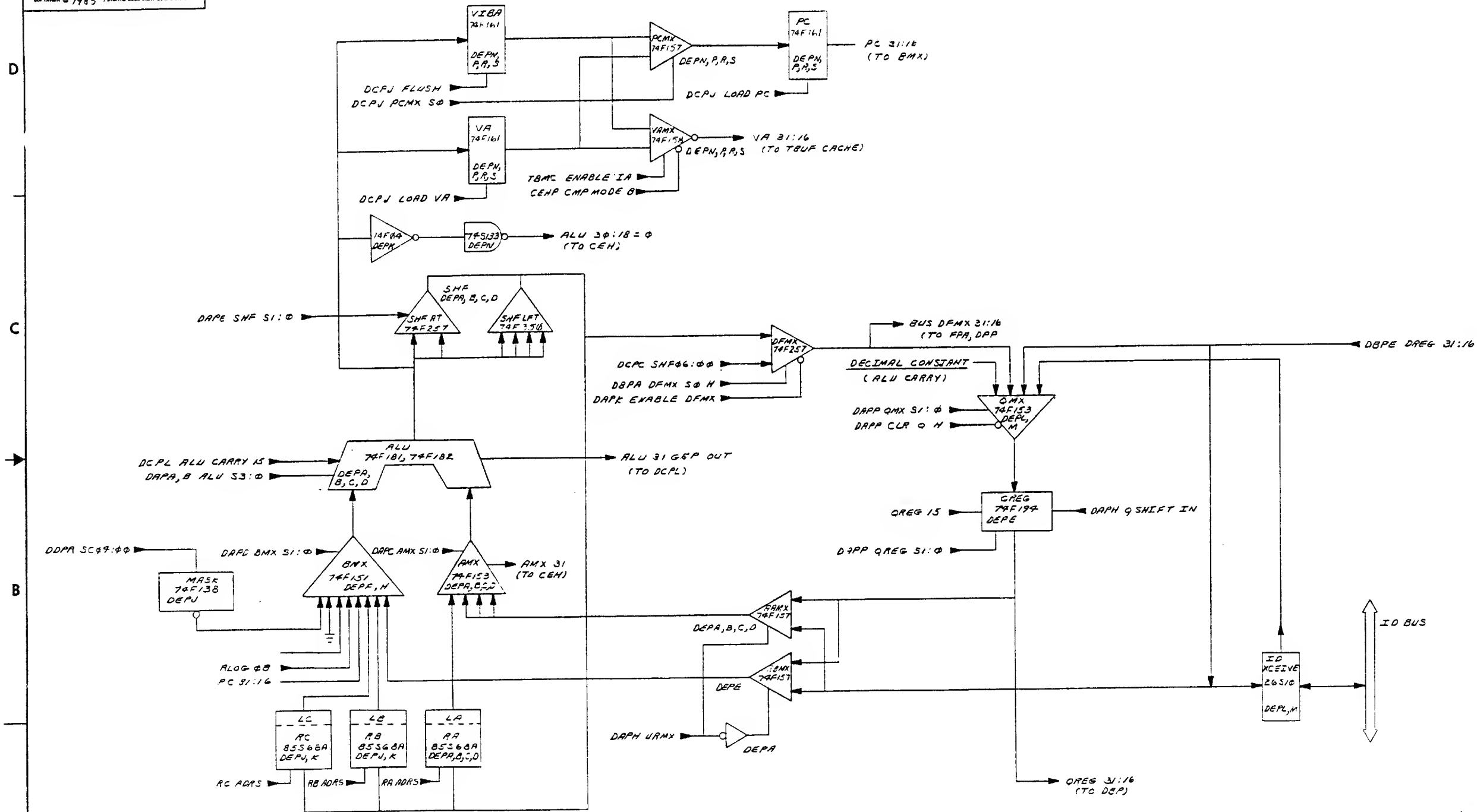
SHEET A2 OF A2

| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN<br>REV | DESCRIPTION                     | QTY PER VARIATION |      | REFERENCE DESIGNATOR             |
|------|------|--------------|-------------|------------|---------------------------------|-------------------|------|----------------------------------|
|      |      |              |             |            |                                 | 00                | B1   |                                  |
| 27   | 27   |              | 1912746-01  |            | 74S37-1BUFFER-GATE              | 1                 |      | E96                              |
| 28   | 28   |              | 1921322-01  |            | 74F161 BINARY COUNTER,PRESE     | 12                |      | E49,E50,E59,E60,E70,E71,E81,E82, |
|      |      |              |             |            |                                 |                   | CONT | E52,E62,E73,E84                  |
| 29   | 29   |              | 1921008-01  |            | 74F240 BUFFER/LINE DRIVER,I     | 1                 |      | E90                              |
| 30   | 30   |              | 1921009-01  |            | 74F241 BUFFER/LINE DRIVER,N     | 1                 |      | E95                              |
| 31   | 31   |              | 1913788-00  |            | 26S10 TRANSCEIVER,BUS,QUA       | 4                 |      | E12,E13,E24,E25                  |
| 32   | 32   |              | 1216988-02  |            | HANDLE,MODULE,HEX TWO EJECTORS  | 1                 |      |                                  |
| 33   | 33   |              | 9000024-01  |            | EYELET,ROLLED 0.1210DX0.192     | 12                |      |                                  |
| 34   | 34   |              | 9105740-55  |            | WIRE(WRAP) 30AWG KYNAR UL14 A/R |                   |      |                                  |

35 NOTE: SPARE I.C. LOCATIONS ARE E101-E103,E112-E115

|         |                 |                |      |      |                 |     |
|---------|-----------------|----------------|------|------|-----------------|-----|
| DIGITAL | TITLE<br>D.E.P. | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|         |                 |                | K    | PL   | M7468-0-DBP     | 8   |

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION



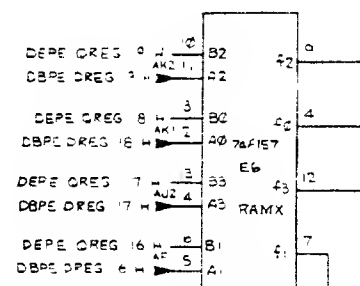
(BLOCK DIAGRAM) (SLOT 10)

|                   |                 |         |
|-------------------|-----------------|---------|
| DAN               | FIRST USED ON   | digital |
| CHK'D             | TITLE           |         |
| ENG'D             | DATA PATH 31:16 |         |
| PROJ. ENG'D       |                 |         |
| NEXT HIGHER ASSY. |                 |         |
| SCALE             | SIZE CODE       | NUMBER  |
| SHEET 1 OF 17     | DIST            | REV B   |

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION

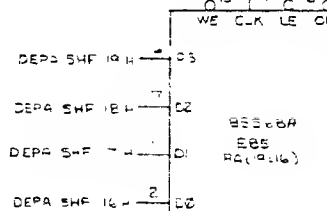
RAMX-74F57

|     |    |       |
|-----|----|-------|
| STB | SS | RAMX  |
| H   | X  | ENH   |
| L   | L  | DREG  |
| L   | L  | CPREG |



DEPA RAMX2 H

DEPB LATCH 12 H  
DEPB CP24 L  
DAPX RA RB WRT 8 L



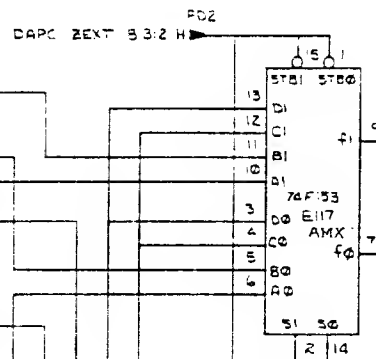
DAPL RA ADRES H  
DAPL RA ADRES2 H  
DAPL RA ADRES1 H  
DAPL RA ADRES0 H

RA-85.68A

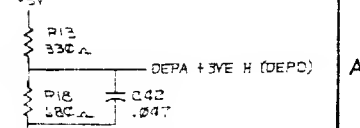
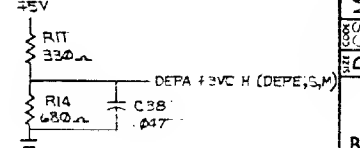
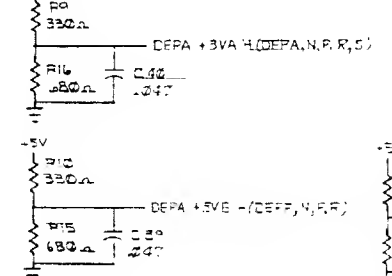
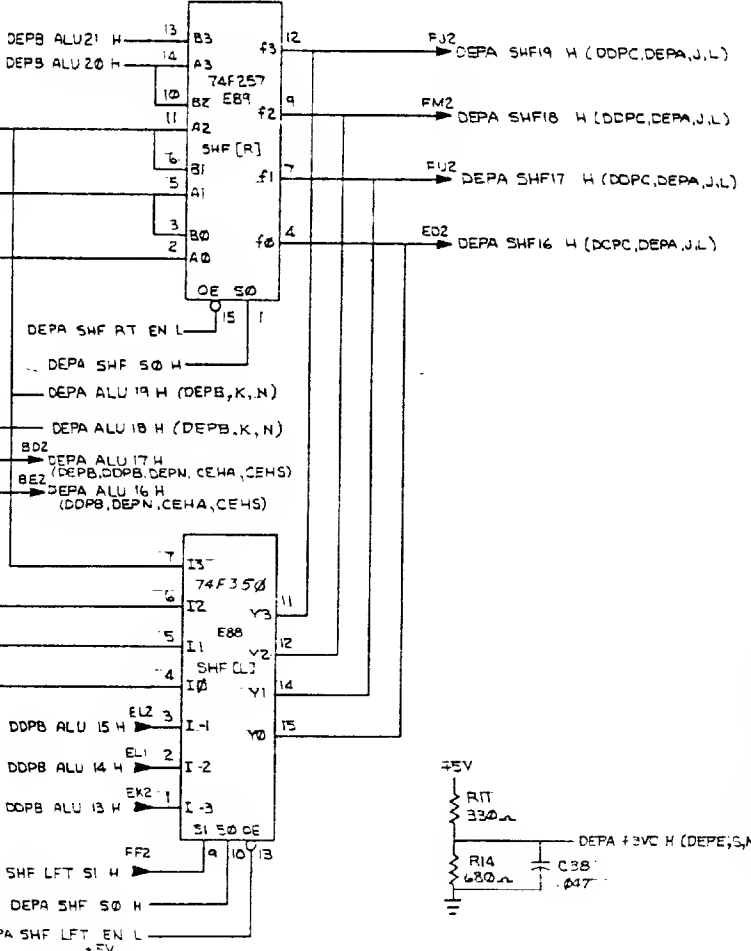
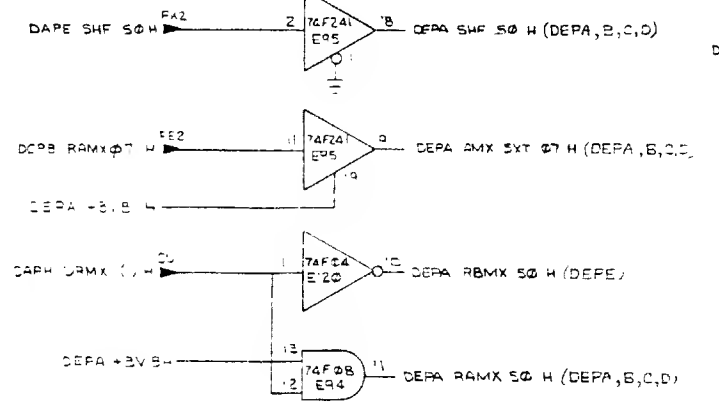
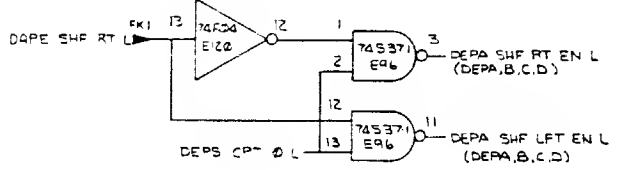
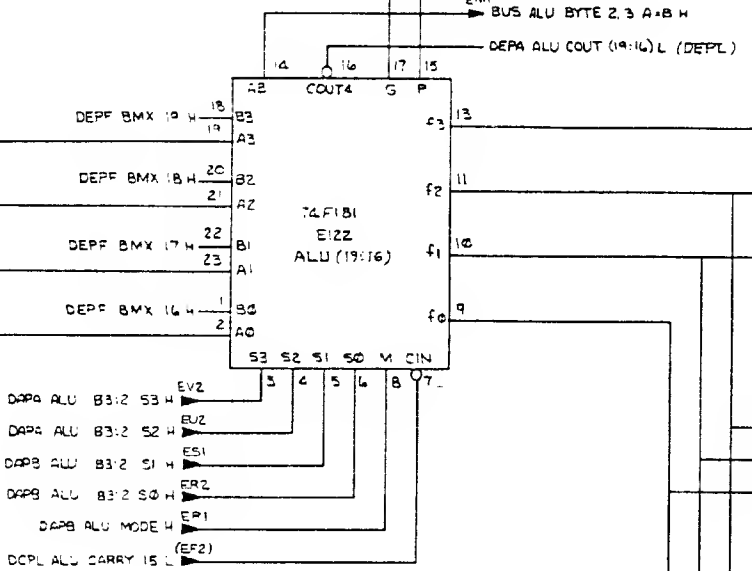
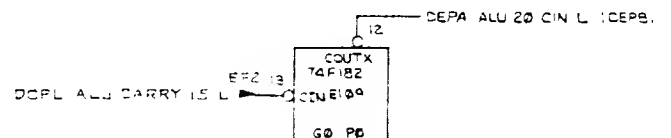
| LE | WE | CLK | PA | FUNC          |
|----|----|-----|----|---------------|
| H  | H  | X   | X  | NO-OP         |
| L  | L  | L   | L  | STORE RAM-ENH |
| L  | L  | L   | H  | STORE RAM-ENH |
| L  | L  | L   | L  | LATCH-ENH     |

74F157

|     |    |    |   |
|-----|----|----|---|
| STB | S1 | S2 | S |
| H   | X  | X  | L |
| L   | L  | L  | L |
| L   | L  | H  | L |
| L   | L  | L  | C |



DEPB AMX 5X15 H  
DEPB AMX 5X17 H  
DAPC AMX 8:3:2 S1 H  
DAPC AMX 8:3:2 S0 H

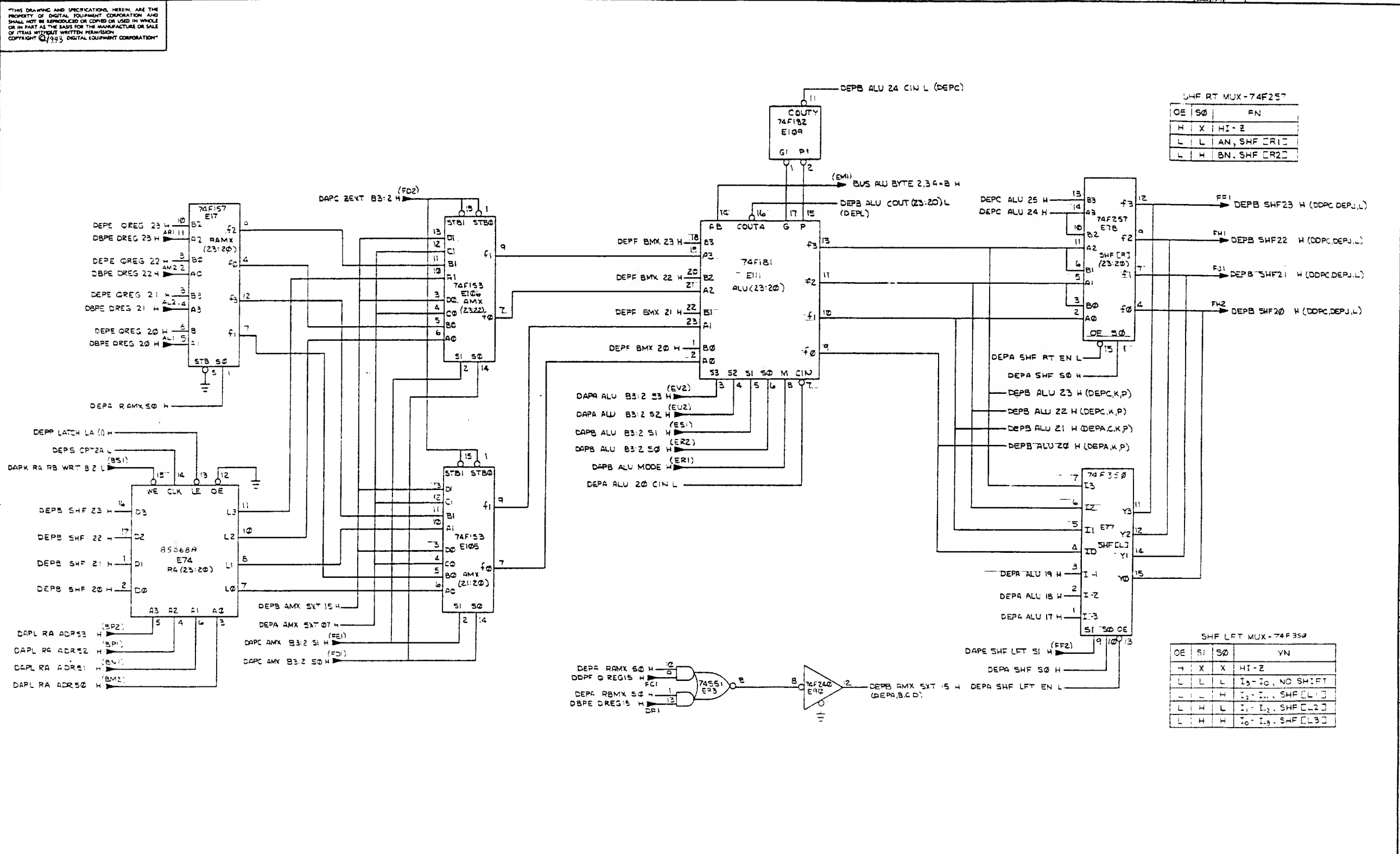


(RA, RAMX, ALU, SHF 19:16) (SLOT 10)

|       |                        |           |         |        |           |      |   |
|-------|------------------------|-----------|---------|--------|-----------|------|---|
| TITLE | DATA PATH 31:16 (DEPA) | SIZE/CODE | D05     | NUMBER | M7468-0-0 | REV. | B |
| SCALE | NONE                   | SHEET     | 2 OF 17 | DIST.  |           |      |   |

"THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1993 DIGITAL EQUIPMENT CORPORATION"

D  
C  
B  
A



SHF RT MUX - 74F257

| OE | S0 | FN           |
|----|----|--------------|
| H  | X  | HI-Z         |
| L  | L  | AN, SHF [R1] |
| L  | H  | BN, SHF [R2] |

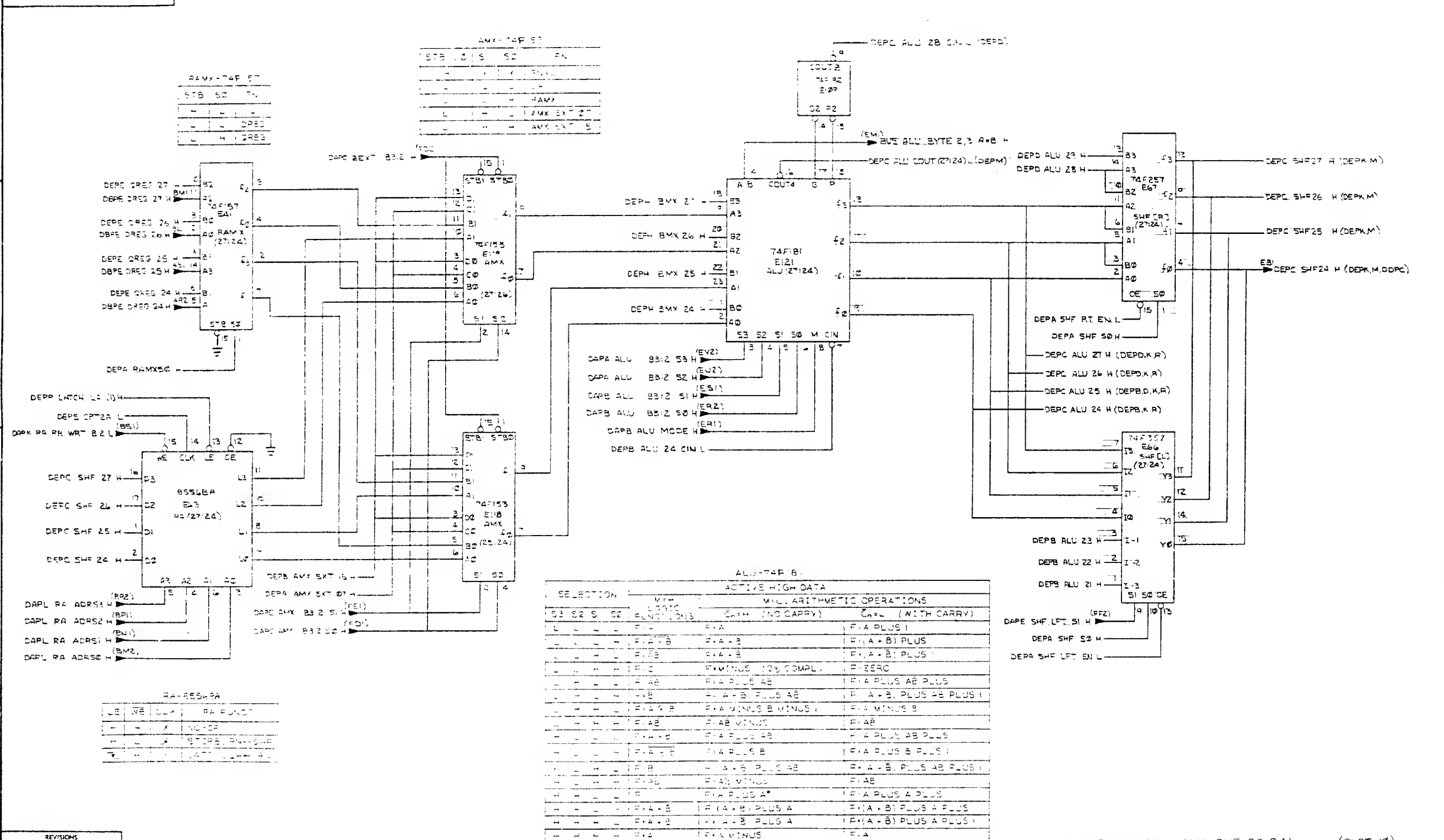
SHF LFT MUX - 74F350

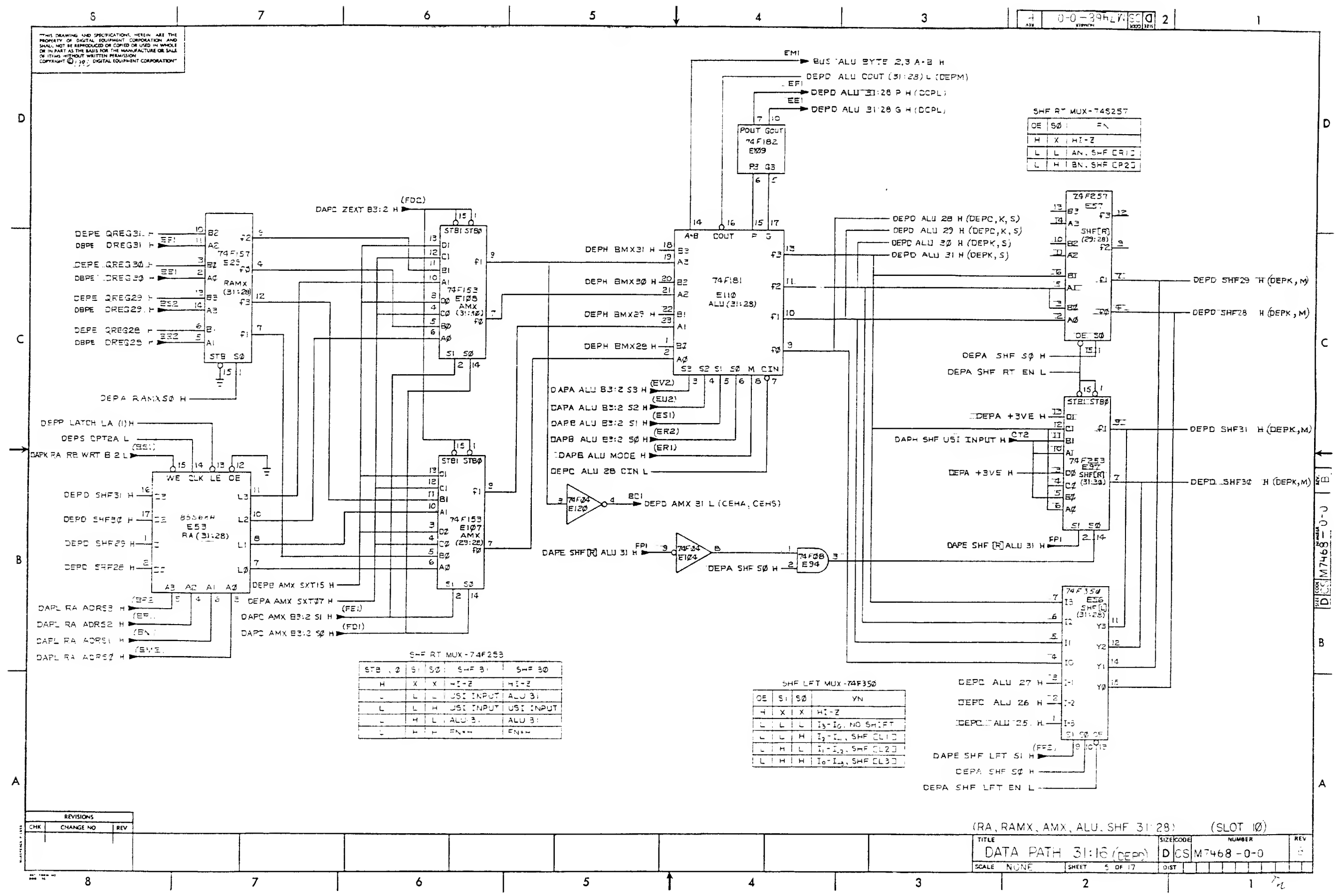
| OE | S1 | S0 | YN              |
|----|----|----|-----------------|
| H  | X  | X  | HI-Z            |
| L  | L  | L  | I3-I0, NO SHIFT |
| L  | L  | H  | I3-I1, SHF [L1] |
| L  | H  | L  | I2-I0, SHF [L2] |
| L  | H  | H  | I3-I0, SHF [L3] |

REVISIONS

| CHK | CHANGE NO | REV |
|-----|-----------|-----|
|     |           |     |

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION.





THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF IT ORS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1970 DIGITAL EQUIPMENT CORPORATION

0-0-39647-00 2

SHF RT MUX-74F257

|    |    |              |
|----|----|--------------|
| OE | S0 | FN           |
| H  | X  | HI-Z         |
| L  | L  | AN. SHF EP10 |
| L  | H  | BN. SHF EP20 |

74F257

|    |    |         |    |
|----|----|---------|----|
| 13 | B3 | E57     | 12 |
| 14 | A3 | SHF[R]  |    |
| 10 | B2 | (29:28) | 9  |
| 11 | A2 | SHF     |    |
| 16 | B1 |         | 7  |
| 15 | A1 |         | 6  |
| 13 | B0 |         | 5  |
| 14 | A0 |         | 4  |
| 15 | S0 |         | 3  |

74F253

|    |    |         |    |
|----|----|---------|----|
| 13 | B3 | E57     | 12 |
| 14 | A3 | SHF[R]  |    |
| 10 | B2 | (29:28) | 9  |
| 11 | A2 | SHF     |    |
| 16 | B1 |         | 7  |
| 15 | A1 |         | 6  |
| 13 | B0 |         | 5  |
| 14 | A0 |         | 4  |
| 15 | S0 |         | 3  |

74F350

|    |    |         |    |
|----|----|---------|----|
| 13 | B3 | E56     | 12 |
| 14 | A3 | SHF[R]  |    |
| 10 | B2 | (31:28) | 9  |
| 11 | A2 | SHF     |    |
| 16 | B1 |         | 7  |
| 15 | A1 |         | 6  |
| 13 | B0 |         | 5  |
| 14 | A0 |         | 4  |
| 15 | S0 |         | 3  |

SHF RT MUX-74F253

|     |    |    |    |           |           |
|-----|----|----|----|-----------|-----------|
| STB | S0 | S1 | S2 | SHF B1    | SHF B0    |
| H   | X  | X  | X  | HI-Z      | HI-Z      |
| L   | L  | L  | L  | USI INPUT | ALU B1    |
| L   | L  | H  | H  | USI INPUT | USI INPUT |
| L   | H  | L  | L  | ALU B1    | ALU B1    |
| L   | H  | H  | H  | FN=H      | FN=H      |

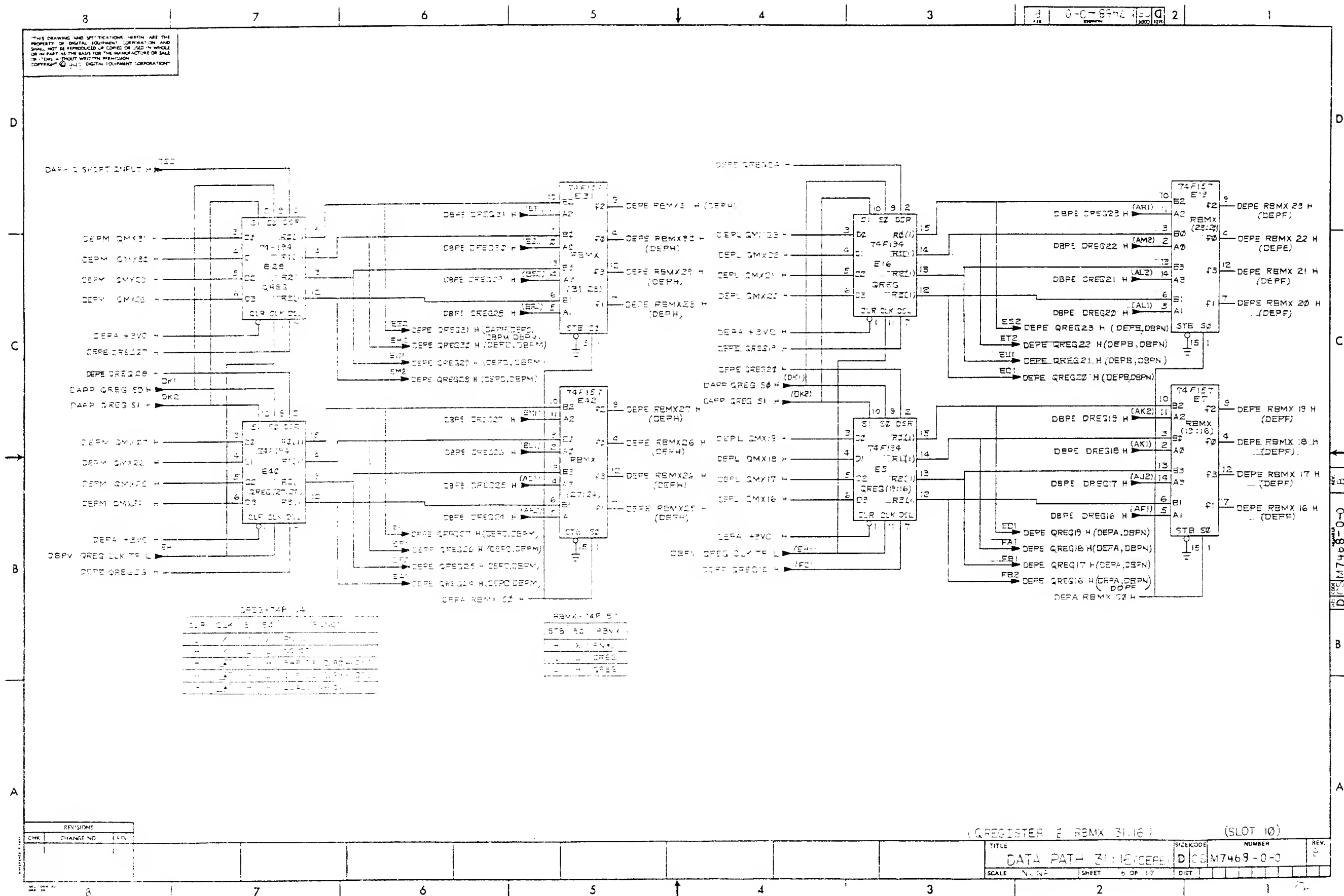
SHF LFT MUX-74F350

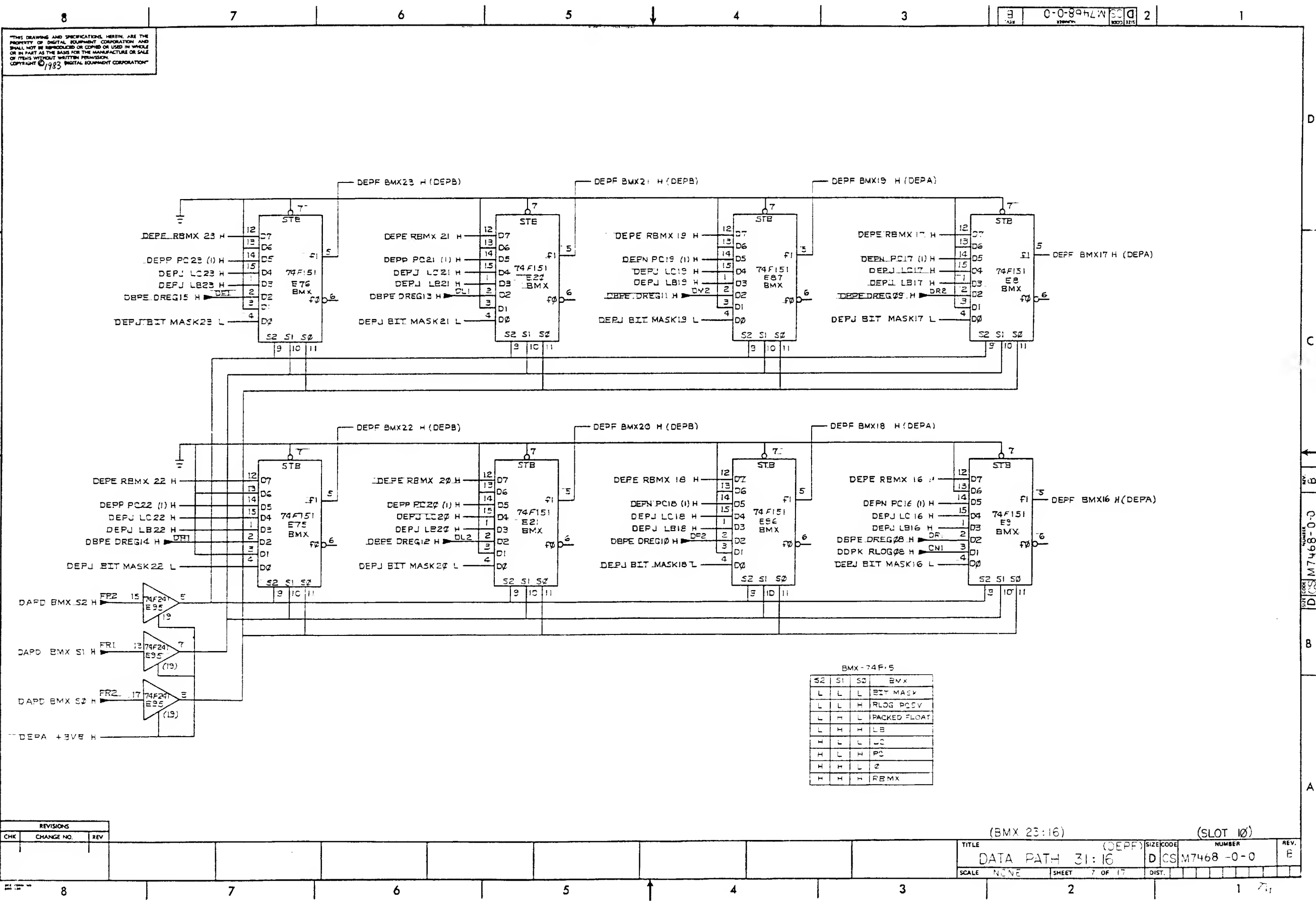
|    |    |    |                 |
|----|----|----|-----------------|
| OE | S1 | S0 | YN              |
| H  | X  | X  | HI-Z            |
| L  | L  | L  | I3-I0, NO SHIFT |
| L  | L  | H  | I2-I1, SHF CL10 |
| L  | H  | L  | I1-I0, SHF CL20 |
| L  | H  | H  | I0-I3, SHF CL30 |

REVISIONS

|     |           |     |
|-----|-----------|-----|
| CHK | CHANGE NO | REV |
|     |           |     |

|       |                        |           |         |     |
|-------|------------------------|-----------|---------|-----|
| TITLE | DATA PATH 31:16 (DEPD) | SIZE CODE | NUMBER  | REV |
| SCALE | NONE                   | SHEET     | 5 OF 17 |     |
|       |                        | DIST      |         |     |





THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION

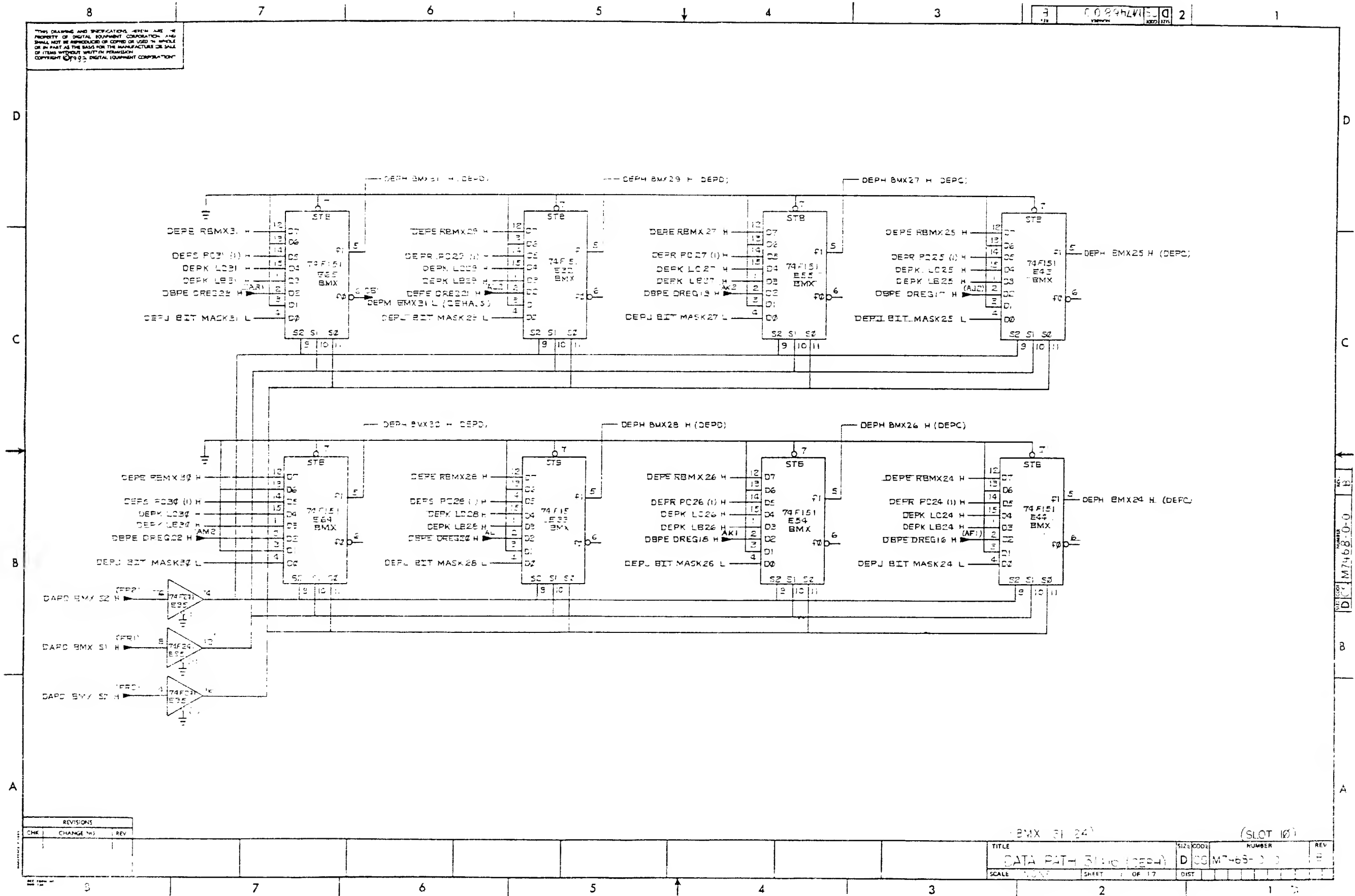
BMX-74F151

| S2 | S1 | S0 | BMX          |
|----|----|----|--------------|
| L  | L  | L  | BIT MASK     |
| L  | L  | H  | RLOG PCOV    |
| L  | H  | L  | PACKED FLOAT |
| L  | H  | H  | LB           |
| H  | L  | L  | LC           |
| H  | L  | H  | PC           |
| H  | H  | L  | Q            |
| H  | H  | H  | RBMX         |

| REVISIONS |            |     | TITLE           |      | NUMBER         |         | REV. |  |
|-----------|------------|-----|-----------------|------|----------------|---------|------|--|
| CHK       | CHANGE NO. | REV | (BMX 23:16)     |      | (SLOT 10)      |         |      |  |
|           |            |     | DATA PATH 31:16 |      | D CS M7468-0-0 |         | B    |  |
|           |            |     | SCALE           | NONE | SHEET          | 7 OF 17 |      |  |



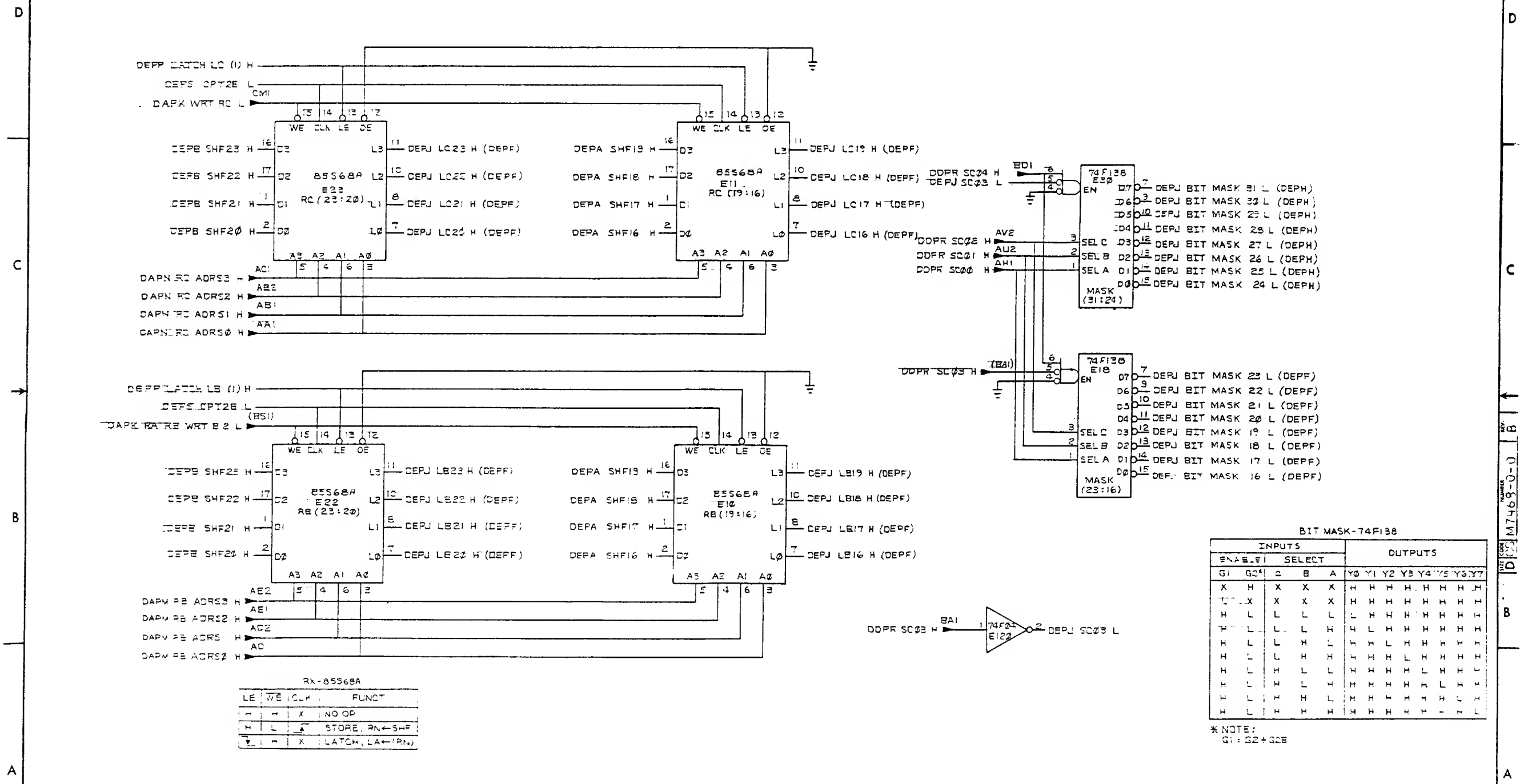
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION, AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1975, DIGITAL EQUIPMENT CORPORATION



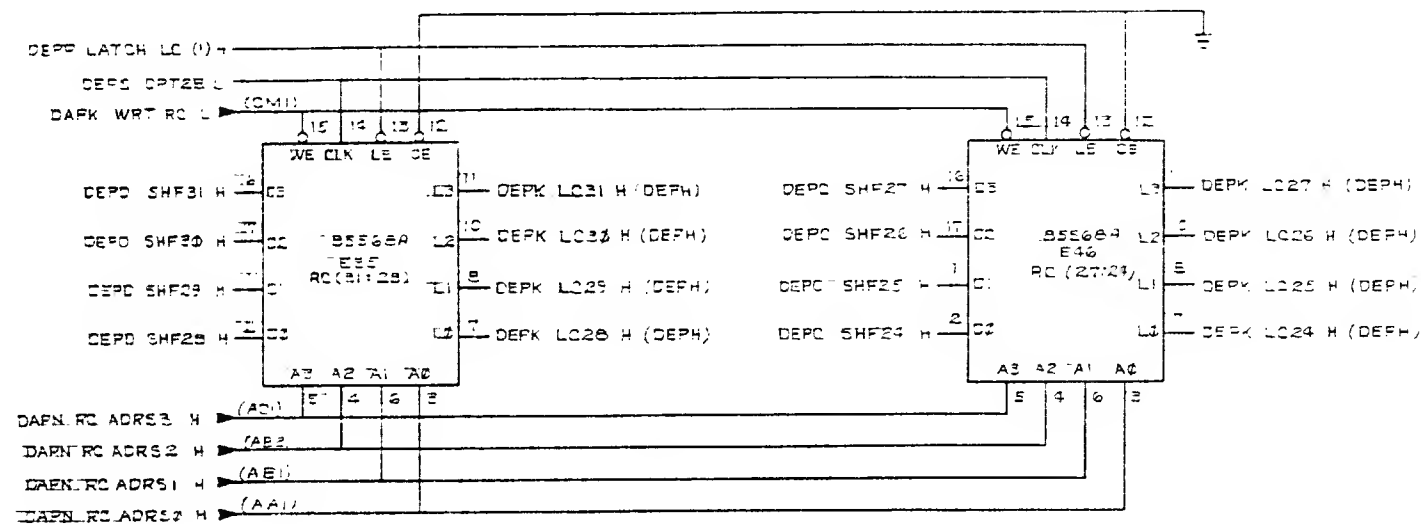
| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |
|           |            |     |

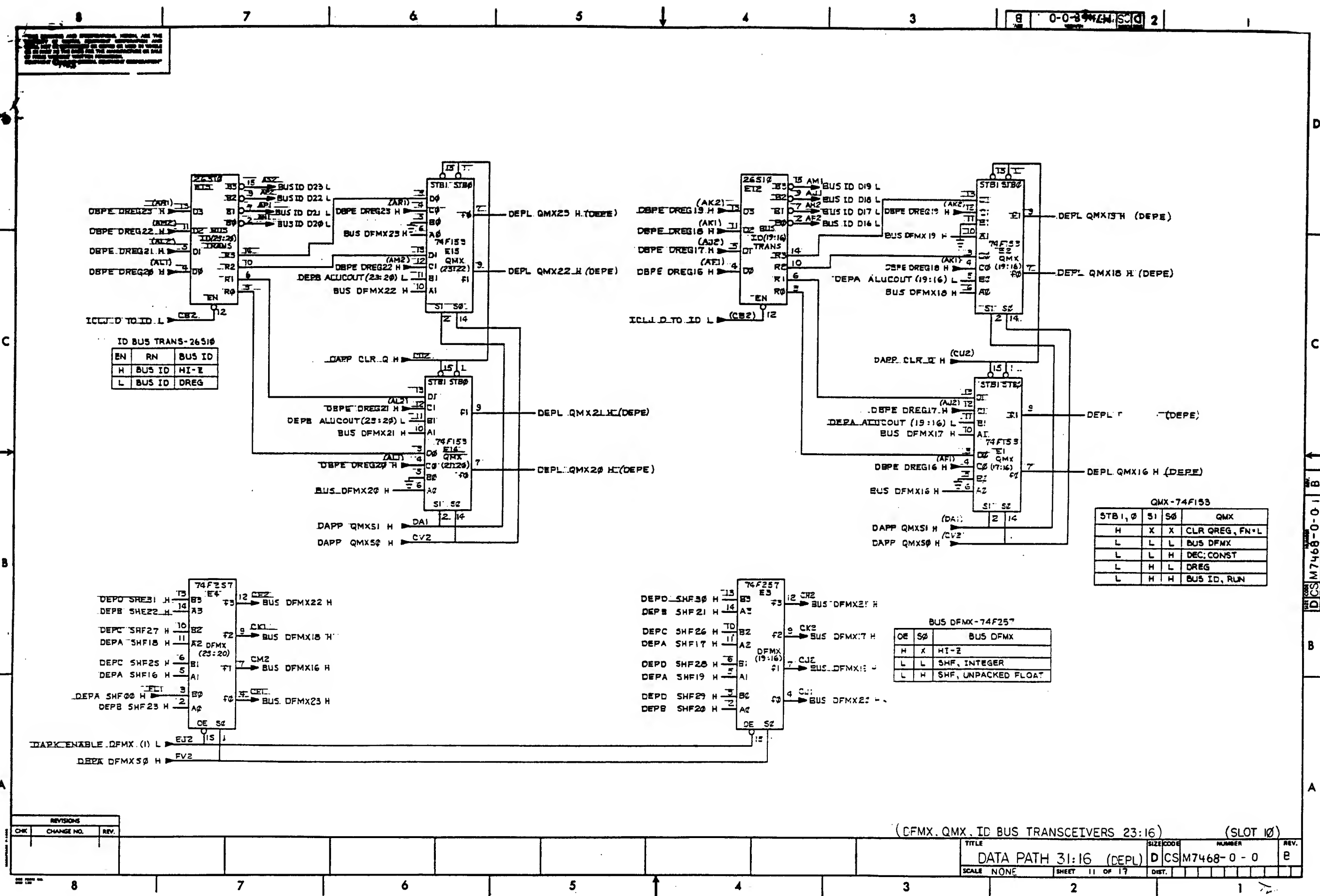
|                        |       |           |              |     |
|------------------------|-------|-----------|--------------|-----|
| TITLE                  |       | SIZE CODE | NUMBER       | REV |
| DATA PATH 31-24 (DEPH) |       | D         | 00 M7-68-0-0 | B   |
| SCALE                  | SHEET | OF        | DIST         |     |
|                        |       |           |              |     |

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION

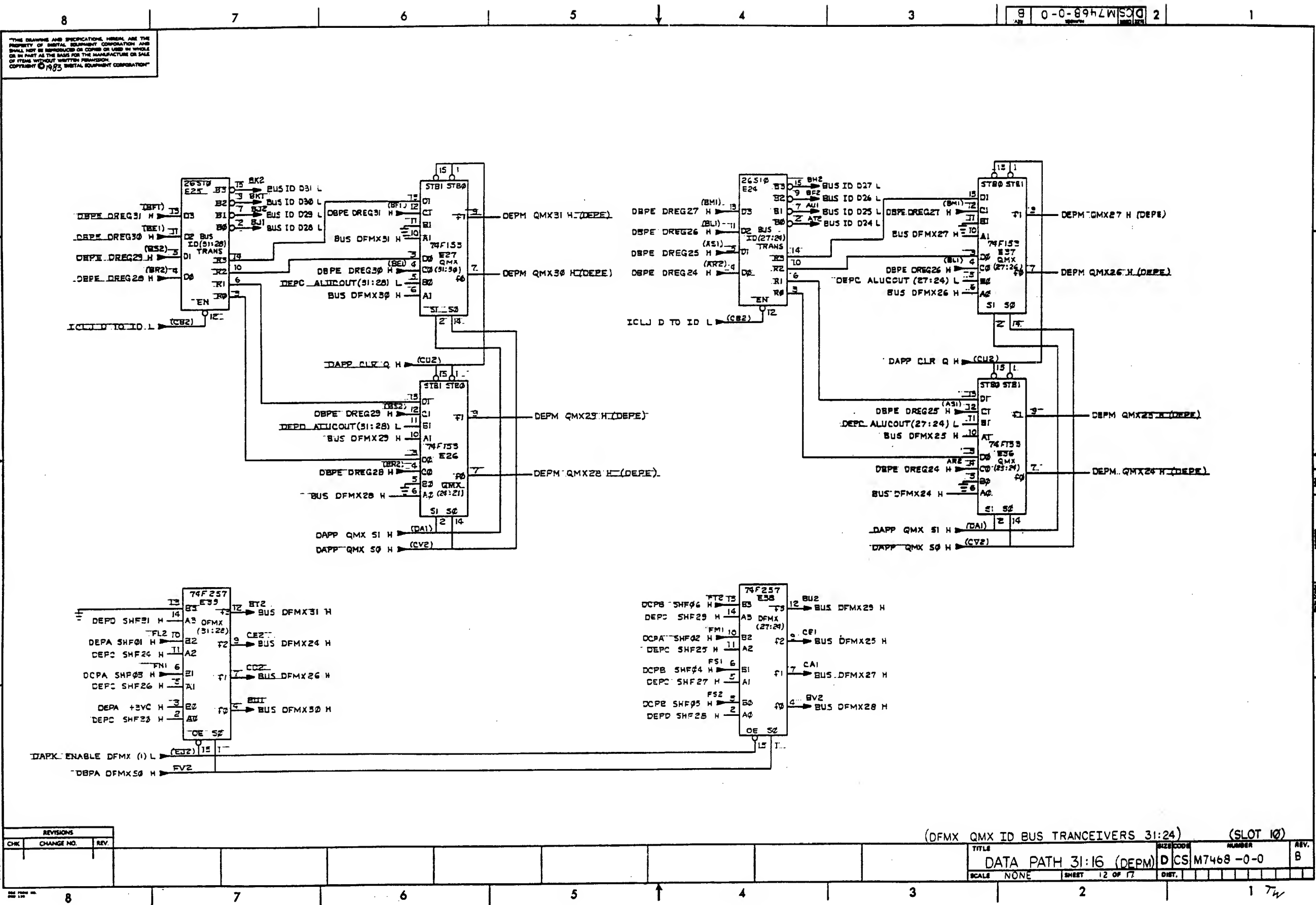


THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1985 DIGITAL EQUIPMENT CORPORATION





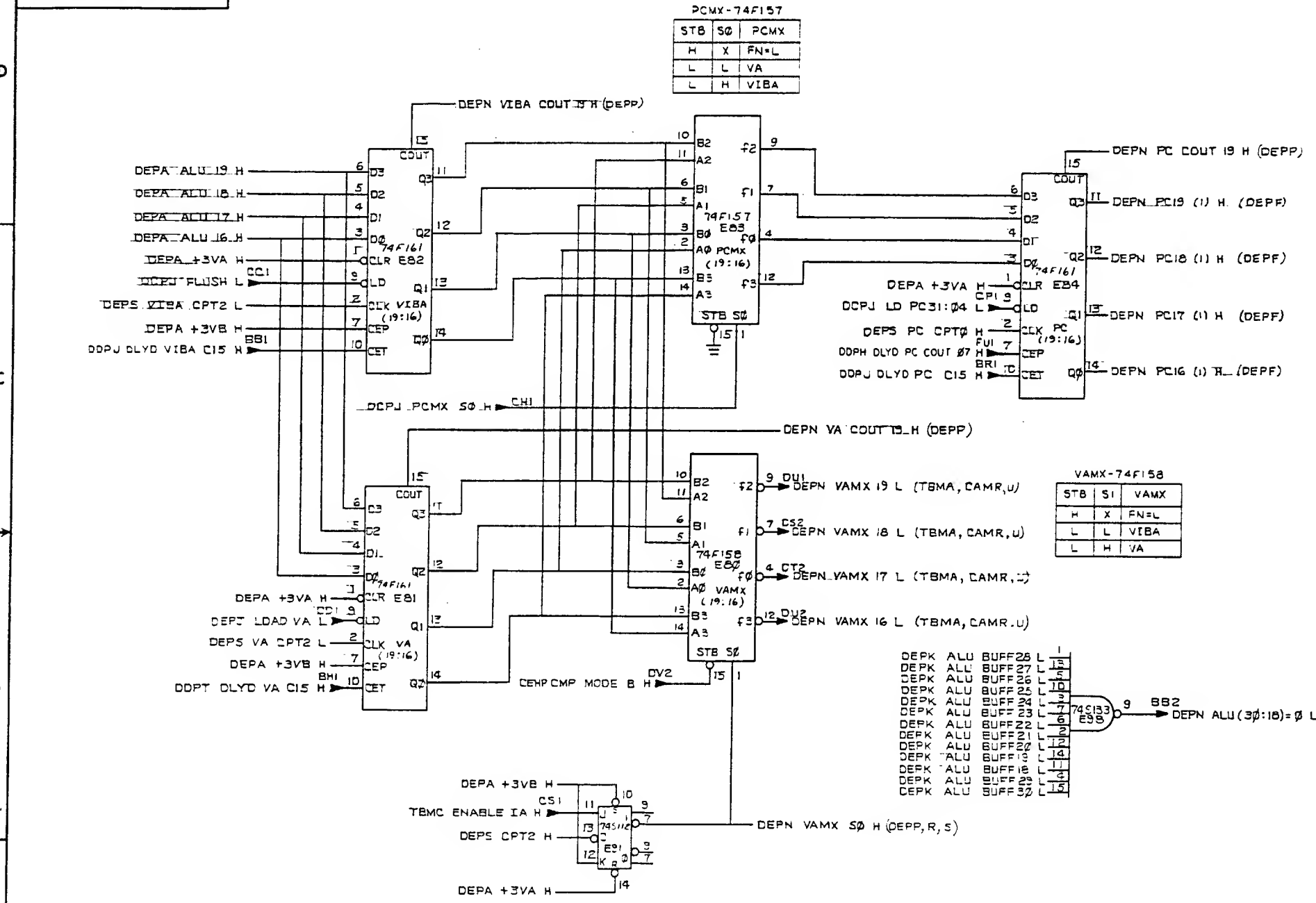
D  
C  
B  
A  
D  
C  
B  
A



THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION

D  
C  
B  
A

D  
C  
B  
A



PCMX-74F157

| STB | S0 | PCMX |
|-----|----|------|
| H   | X  | FN=L |
| L   | L  | VA   |
| L   | H  | VIBA |

VA, VIBA, PC-74F161

| CLR | LD | CLK | CEP | CET | FUNCT        |
|-----|----|-----|-----|-----|--------------|
| L   | X  | X   | X   | X   | CLR, FN=L    |
| H   | L  | X   | X   | X   | LOAD, FN=ALU |
| H   | H  | X   | H   | L   | INC, FN=FN   |
| H   | H  | X   | H   | H   | INC, FN=FN+1 |

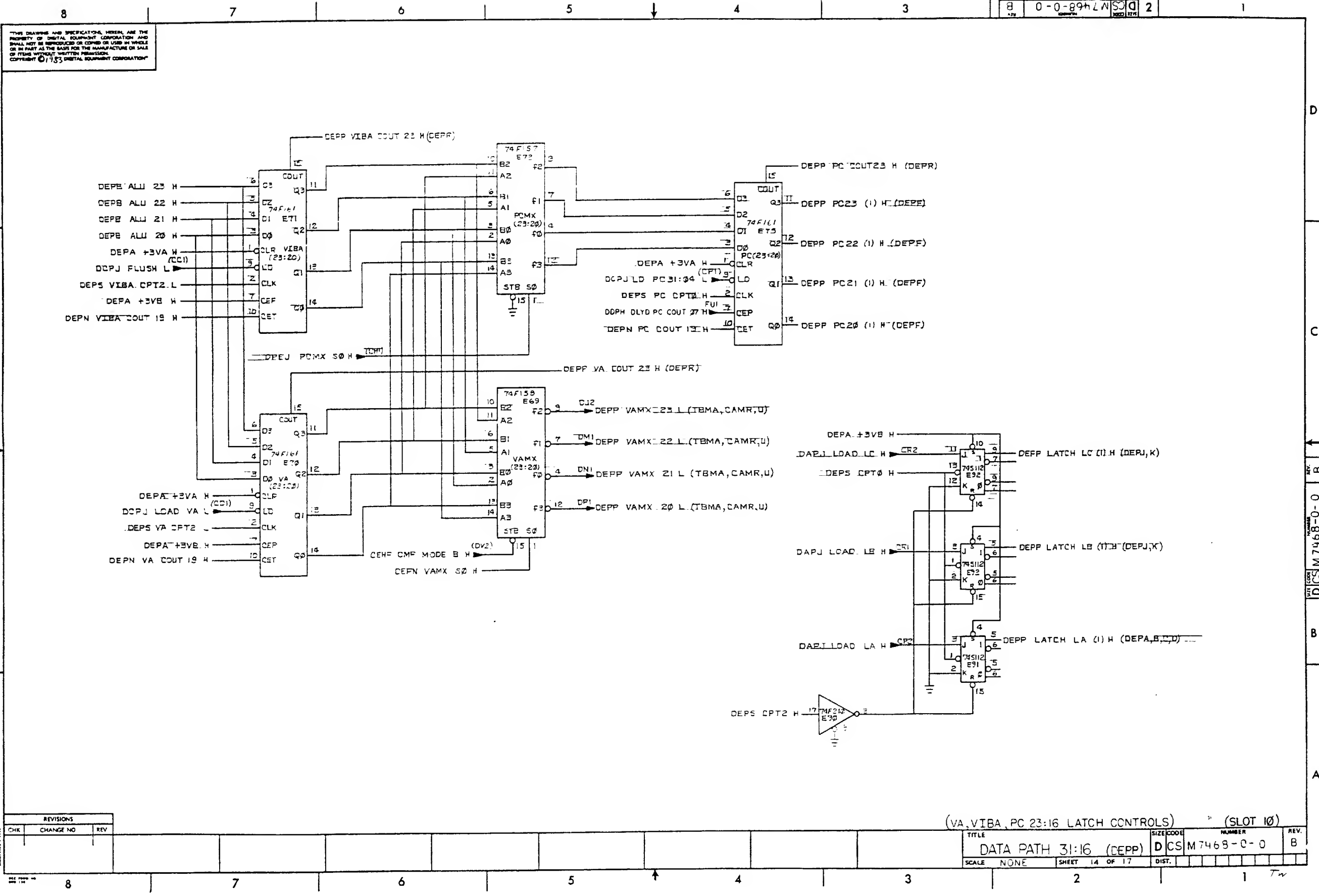
VAMX-74F158

| STB | S1 | VAMX |
|-----|----|------|
| H   | X  | FN=L |
| L   | L  | VIBA |
| L   | H  | VA   |

- DEPK ALU BUFF28 L
- DEPK ALU BUFF27 L
- DEPK ALU BUFF26 L
- DEPK ALU BUFF25 L
- DEPK ALU BUFF24 L
- DEPK ALU BUFF23 L
- DEPK ALU BUFF22 L
- DEPK ALU BUFF21 L
- DEPK ALU BUFF20 L
- DEPK ALU BUFF19 L
- DEPK ALU BUFF18 L
- DEPK ALU BUFF17 L
- DEPK ALU BUFF16 L
- DEPK ALU BUFF15 L
- DEPK ALU BUFF14 L
- DEPK ALU BUFF13 L
- DEPK ALU BUFF12 L
- DEPK ALU BUFF11 L
- DEPK ALU BUFF10 L
- DEPK ALU BUFF09 L
- DEPK ALU BUFF08 L
- DEPK ALU BUFF07 L
- DEPK ALU BUFF06 L
- DEPK ALU BUFF05 L
- DEPK ALU BUFF04 L
- DEPK ALU BUFF03 L
- DEPK ALU BUFF02 L
- DEPK ALU BUFF01 L
- DEPK ALU BUFF00 L

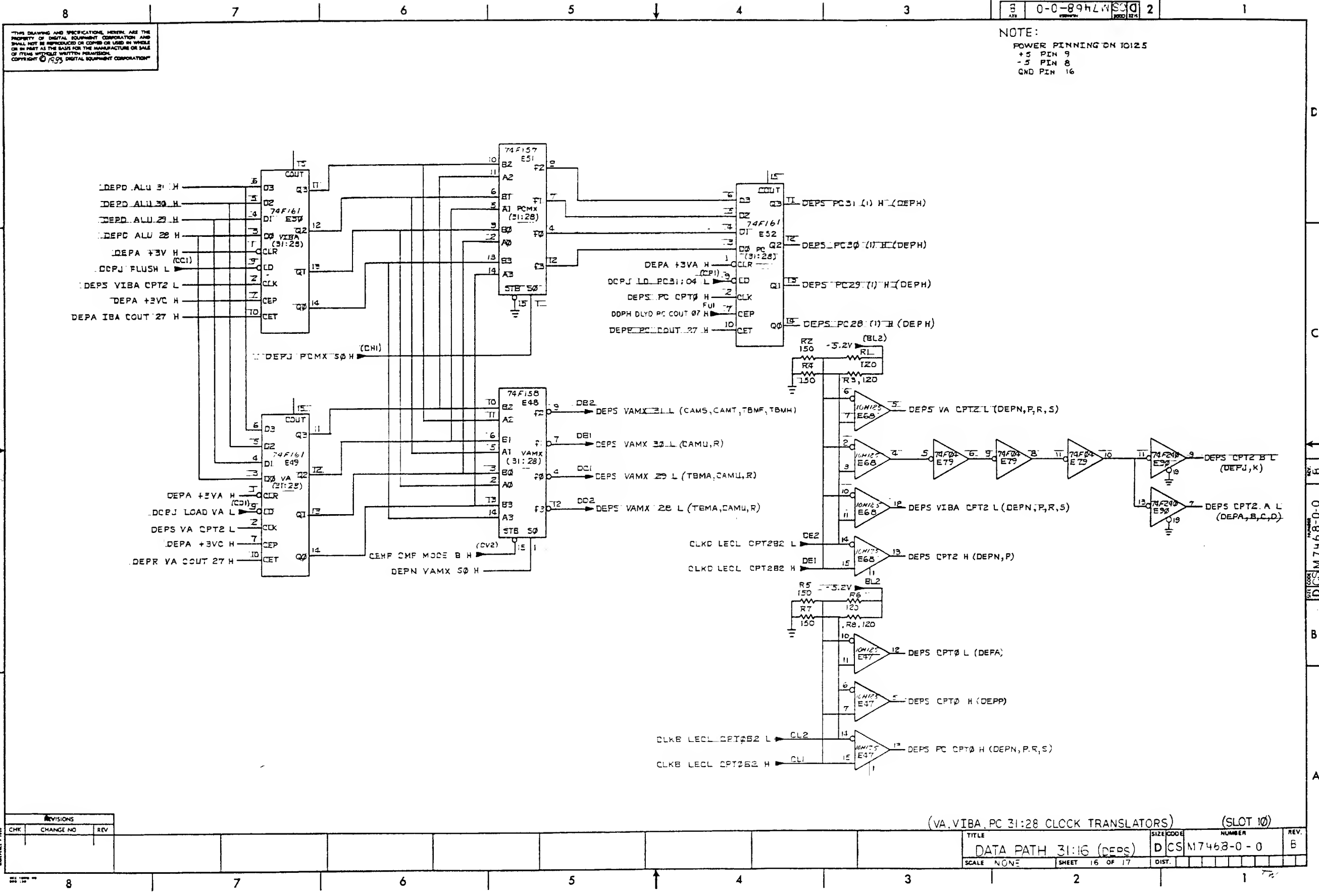
REVISIONS

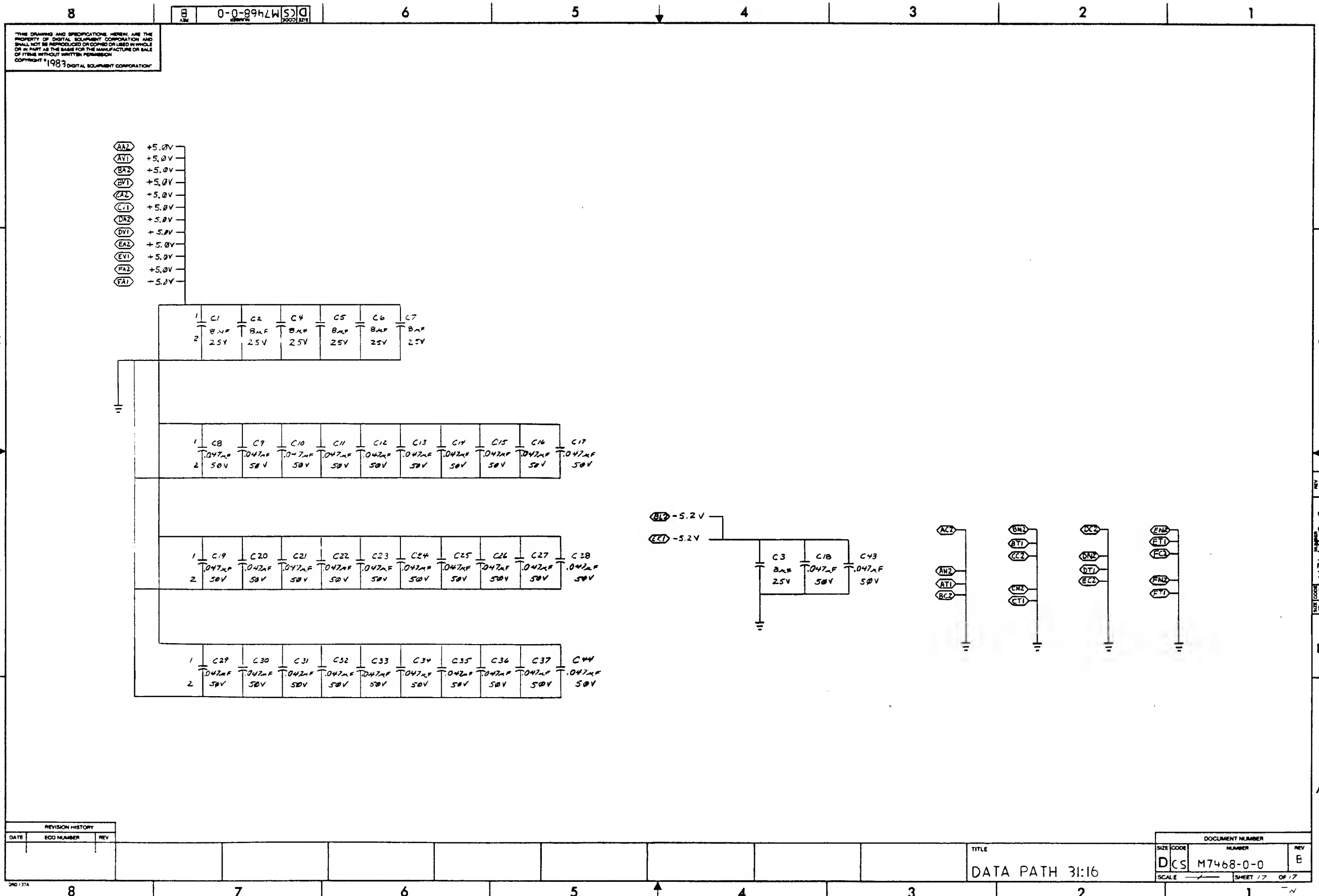
| CHK | CHANGE NO. | REV. |
|-----|------------|------|
|     |            |      |









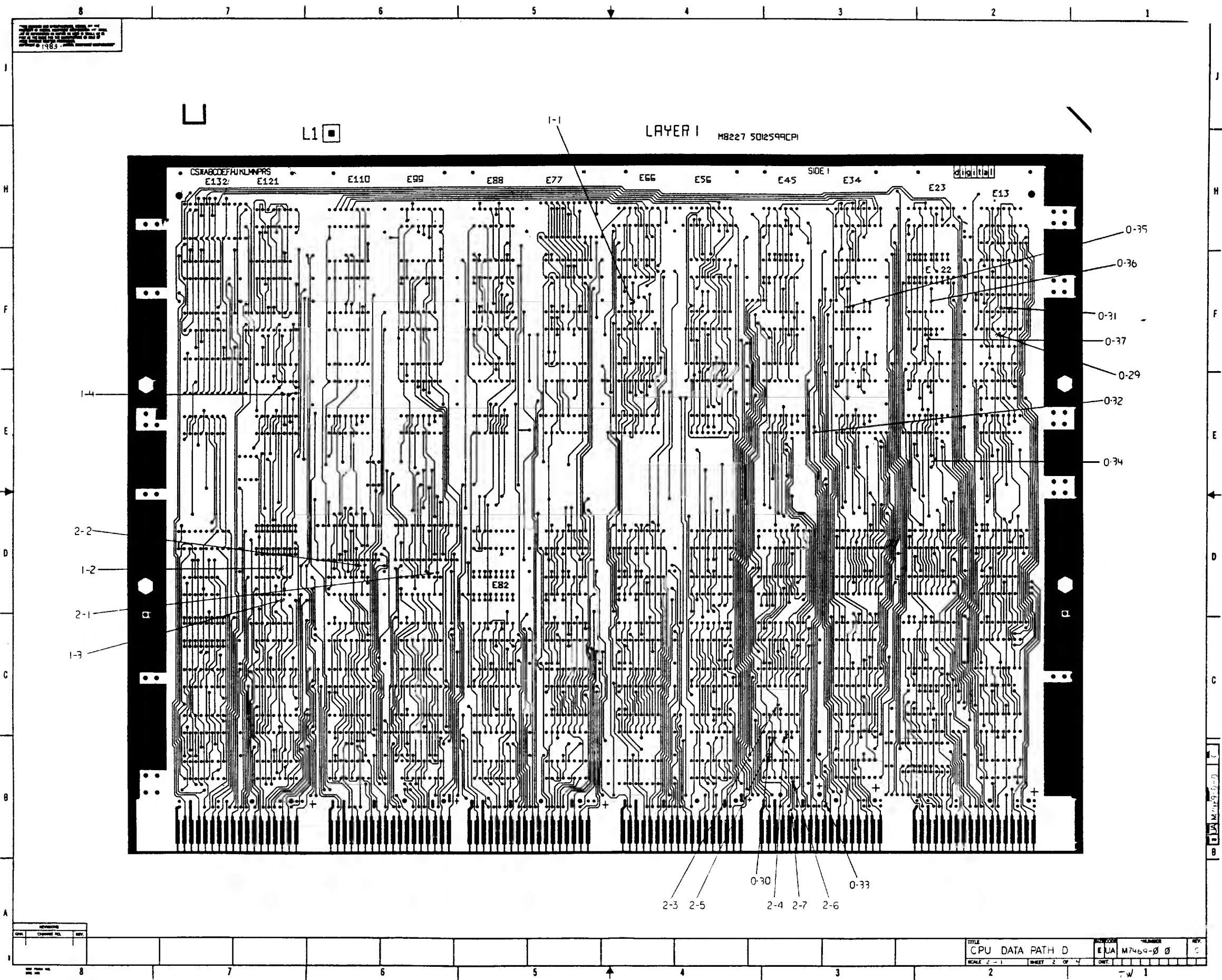


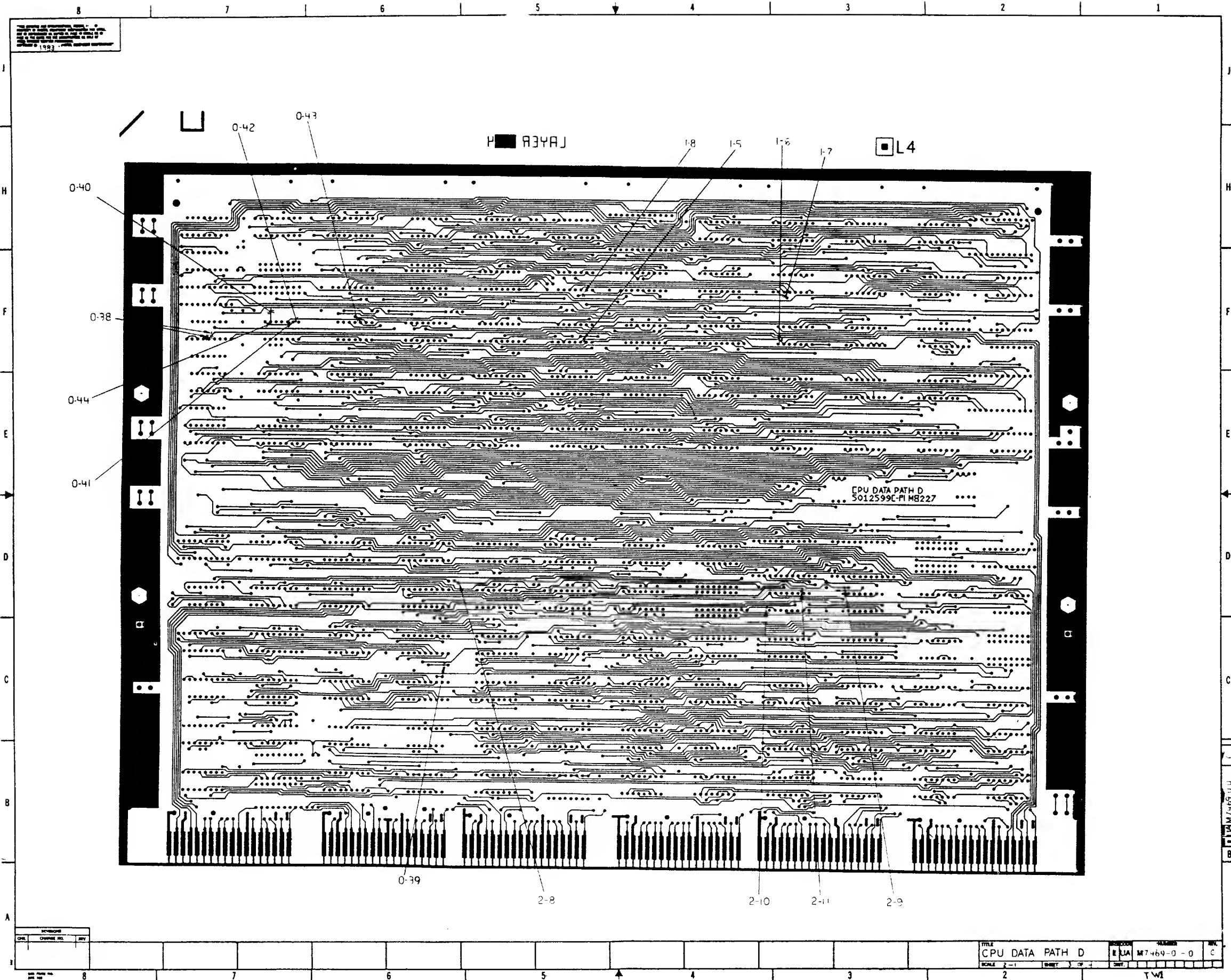


[illegible]

TW



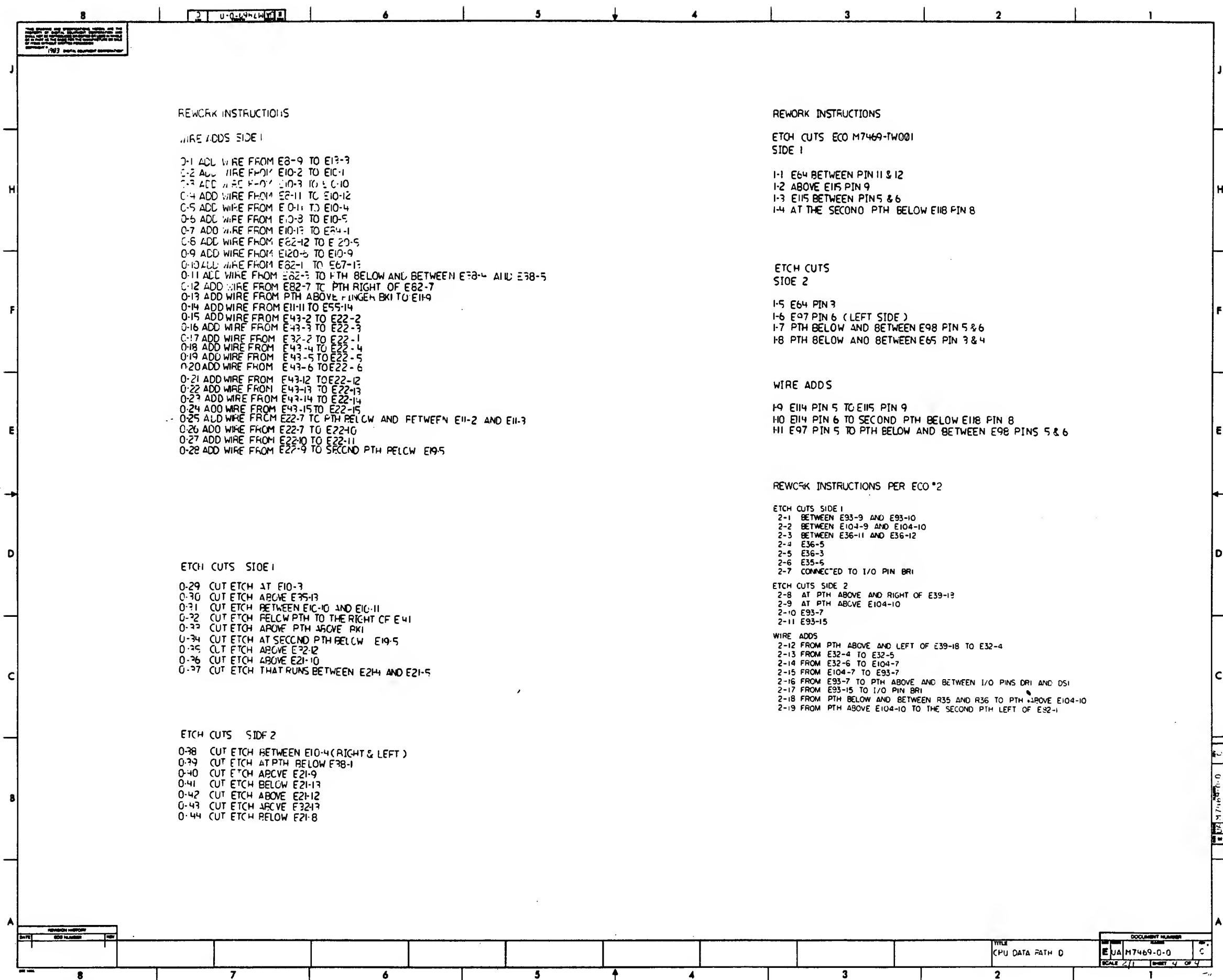




1983

DATE: 1983  
BY: [signature]

TITLE: CPU DATA PATH D  
SCALE: 2-1  
SHEET: 3 OF 4  
REV: 1  
M7464-0-0  
C



REWORK INSTRUCTIONS

WIRE ADDS SIDE 1

- 0-1 ADD WIRE FROM E8-9 TO E13-3
- 0-2 ADD WIRE FROM E10-2 TO E1C-1
- 0-3 ADD WIRE FROM E10-3 TO E1C-10
- 0-4 ADD WIRE FROM E2-11 TO E10-12
- 0-5 ADD WIRE FROM E10-11 TO E10-4
- 0-6 ADD WIRE FROM E10-3 TO E10-5
- 0-7 ADD WIRE FROM E10-13 TO E24-1
- 0-8 ADD WIRE FROM E22-12 TO E20-5
- 0-9 ADD WIRE FROM E120-5 TO E10-9
- 0-10 ADD WIRE FROM E62-1 TO E67-13
- 0-11 ADD WIRE FROM E62-5 TO PTH BELOW AND BETWEEN E38-4 AND E38-5
- 0-12 ADD WIRE FROM E82-7 TO PTH RIGHT OF E82-7
- 0-13 ADD WIRE FROM PTH ABOVE PINGER BK1 TO E11-9
- 0-14 ADD WIRE FROM E11-11 TO E55-14
- 0-15 ADD WIRE FROM E43-2 TO E22-2
- 0-16 ADD WIRE FROM E43-3 TO E22-3
- 0-17 ADD WIRE FROM E32-2 TO E22-1
- 0-18 ADD WIRE FROM E43-4 TO E22-4
- 0-19 ADD WIRE FROM E43-5 TO E22-5
- 0-20 ADD WIRE FROM E43-6 TO E22-6
- 0-21 ADD WIRE FROM E43-12 TO E22-12
- 0-22 ADD WIRE FROM E43-13 TO E22-13
- 0-23 ADD WIRE FROM E43-14 TO E22-14
- 0-24 ADD WIRE FROM E43-15 TO E22-15
- 0-25 ADD WIRE FROM E22-7 TO PTH BELOW AND BETWEEN E11-2 AND E11-3
- 0-26 ADD WIRE FROM E22-7 TO E22-10
- 0-27 ADD WIRE FROM E22-10 TO E22-11
- 0-28 ADD WIRE FROM E27-9 TO SECOND PTH BELOW E19-5

ETCH CUTS SIDE 1

- 0-29 CUT ETCH AT E10-3
- 0-30 CUT ETCH ABOVE E35-13
- 0-31 CUT ETCH BETWEEN E1C-10 AND E1C-11
- 0-32 CUT ETCH BELOW PTH TO THE RIGHT OF E41
- 0-33 CUT ETCH ABOVE PTH ABOVE PK1
- 0-34 CUT ETCH AT SECOND PTH BELOW E19-5
- 0-35 CUT ETCH ABOVE E22-12
- 0-36 CUT ETCH ABOVE E21-10
- 0-37 CUT ETCH THAT RUNS BETWEEN E21-4 AND E21-5

ETCH CUTS SIDE 2

- 0-38 CUT ETCH BETWEEN E10-4 (RIGHT & LEFT)
- 0-39 CUT ETCH AT PTH BELOW E38-1
- 0-40 CUT ETCH ABOVE E21-9
- 0-41 CUT ETCH BELOW E21-13
- 0-42 CUT ETCH ABOVE E21-12
- 0-43 CUT ETCH ABOVE E32-13
- 0-44 CUT ETCH BELOW E21-8

REWORK INSTRUCTIONS

ETCH CUTS ECO M7469-TW001  
SIDE 1

- 1-1 E64 BETWEEN PIN 11 & 12
- 1-2 ABOVE E115 PIN 9
- 1-3 E115 BETWEEN PINS 5 & 6
- 1-4 AT THE SECOND PTH BELOW E118 PIN 8

ETCH CUTS  
SIDE 2

- 1-5 E64 PIN 3
- 1-6 E97 PIN 6 (LEFT SIDE)
- 1-7 PTH BELOW AND BETWEEN E98 PIN 5 & 6
- 1-8 PTH BELOW AND BETWEEN E65 PIN 3 & 4

WIRE ADDS

- 1-9 E114 PIN 5 TO E115 PIN 9
- 1-10 E114 PIN 6 TO SECOND PTH BELOW E118 PIN 8
- 1-11 E97 PIN 5 TO PTH BELOW AND BETWEEN E98 PINS 5 & 6

REWORK INSTRUCTIONS PER ECO \*2

ETCH CUTS SIDE 1

- 2-1 BETWEEN E93-9 AND E93-10
- 2-2 BETWEEN E104-9 AND E104-10
- 2-3 BETWEEN E36-11 AND E36-12
- 2-4 E36-5
- 2-5 E36-3
- 2-6 E35-5
- 2-7 CONNECTED TO I/O PIN BRI

ETCH CUTS SIDE 2

- 2-8 AT PTH ABOVE AND RIGHT OF E39-13
- 2-9 AT PTH ABOVE E104-10
- 2-10 E93-7
- 2-11 E93-15

WIRE ADDS

- 2-12 FROM PTH ABOVE AND LEFT OF E39-18 TO E32-4
- 2-13 FROM E32-4 TO E32-5
- 2-14 FROM E32-6 TO E104-7
- 2-15 FROM E104-7 TO E93-7
- 2-16 FROM E93-7 TO PTH ABOVE AND BETWEEN I/O PINS DRI AND DSI
- 2-17 FROM E93-15 TO I/O PIN BRI
- 2-18 FROM PTH BELOW AND BETWEEN R35 AND R36 TO PTH ABOVE E104-10
- 2-19 FROM PTH ABOVE E104-10 TO THE SECOND PTH LEFT OF E32-1

REVISION HISTORY

CPU DATA PATH D

DOCUMENT NUMBER  
EUA M7469-0-0  
SCALE 2/1 SHEET 4 OF 4



AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A1 OF A2

| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                 | QTY | PER VARIATION | REFERENCE DESIGNATOR  |
|------|------|------------------|-------------|---------|-----------------------------|-----|---------------|---|
|      |      |                  |             |         | VARIATION REVISION LEVEL:   | 00  |               |   |
| 1    | 1    | D-MD-5016070-0-0 | 5012599-00  |         | M8227                       | 1   |               |   |
| 2    | 2    |                  | 1012084-01  | 8       | MFD 25V +75-10% AL EL       | 7   |               | C1-C7   |
| 3    | 3    |                  | 1012784-00  | .047    | MFD 50V +80-20% CER         | 40  |               | C8-C43,C46,C48-C50  |
| 4    | 4    |                  | 1300295-00  | 330.0   | .25 W 5.0 % CF              | 13  |               | R9,R11,R13,R15,R17,R19,R21,R23,R25,R28,R29,R35,R39                  |
| 5    | 5    |                  | 1301424-00  | 680.0   | .25 W 5.0 % CF              | 4   | CONT          | R27,R30,R36,R40   |
| 6    | 6    |                  | 1300247-00  | 120.0   | .25 W 5.0 % CF              | 4   |               | R1,R3,R6,R8   |
| 7    | 7    |                  | 1300250-00  | 150.0   | .25 W 5.0 % CF              | 4   |               | R2,R4,R5,R7   |
| 8    | 8    |                  | 1301775-00  | 820.0   | .25 W 5.0 % CF              | 9   | CONT          | R10,R12,R14,R16,R18,R20,R22,R24,R26                                 |
| 9    | 9    |                  | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN   | 5   |               | E5,E21,E84,E126,E10   |
| 10   | 10   |                  | 1921307-01  |         | 74F04 HEX INVERTER          | 10  | CONT          | E8,E35,E42,E45,E64,E65,E97,E115,E120,E131                           |
| 11   | 11   |                  | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN    | 2   |               | E32,E114  |
| 12   | 12   |                  | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN  | 2   |               | E15,E44   |
| 13   | 13   |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN   | 2   |               | E3,E9   |
| 14   | 14   | BLANK            |             | ***     | THIS ITEM IS NOT USED ***   | -   |               |   |
| 15   | 15   |                  | 1921313-01  |         | 74F64 AND OR INVERT GATE,4- | 1   |               | E14   |
| 16   | 16   |                  | 1910545-00  |         | 74S112 FF-JK DUAL,EDGE TRIG | 3   |               | E50,E51,E78   |
| 17   | 17   |                  | 1911983-00  |         | 74S133 NAND GATE-POSITIVE 1 | 5   |               | E43,E98,E108,E109,E22   |
| 18   | 18   |                  | 1921316-01  |         | 74F138 DECODER/DEMUX,1-OF-8 | 2   |               | E2,E52  |
| 19   | 19   |                  | 1921318-01  |         | 74F151 MUX,8-IN             | 8   | CONT          | E7,E19,E30,E41,E95,E106,E117,E128                                   |
| 20   | 20   |                  | 1921319-01  |         | 74F153 MUX,DUAL,4-IN        | 19  | CONT          | E20,E23,E31,E34,E48,E49,E53,E56,E60-E63,E66,E71,E72,E80,E81,E86,E87 |
| 21   | 21   |                  | 1921320-01  |         | 74F157 MUX,QUAD,2-IN        | 13  | CONT          | E57,E58,E68,E69,E73,E75,E76,E85,E88,E92,E103,E118,E121              |
| 22   | 22   |                  | 1921321-01  |         | 74F158 MUX,QUAD,2-IN        | 4   |               | E4,E27,E89,E100   |
| 23   | 23   |                  | 1921324-01  |         | 74F175 FF-D,QUAD            | 4   |               | E1,E12,E24,E25  |

| REVISION HISTORY |            |     | BASIC PART NO: M7469    |    | DRN:   | S.CORCORAN   | DATE:            | 16-SEP-83   | D I G I T A L         |  |                         |                                       |             |     |
|------------------|------------|-----|-------------------------|----|--------|--------------|------------------|---|-----------------------|--|-------------------------|---------------------------------------|-------------|-----|
| ENG              | ECO NUMBER | REV | SECTION A OF A          |    | CHK'D: | T.MCCULLOUGH | DATE:            | 22-MAR-83   | TITLE PARTS LIST      |  |                         |                                       |             |     |
| ---              | INITIAL    | A   | SECTION VARIATION INDEX |    |        |              | DATE:            | 16-SEP-83   | DATA PATH 15:08 (DDP) |  |                         |                                       |             |     |
|                  |            |     | (A)                     | 00 |        |              | DES.ENG:         | K.MCLAREN   | DATE:                 | 16-SEP-83  | DOCUMENT NUMBER         |                                       |             |     |
|                  |            |     | (B)                     |    |        |              |                  |   | DATE:                 | 16-SEP-83  | SIZE                    | CODE                                  | NUMBER      | REV |
|                  |            |     | (C)                     |    |        |              | RESP.ENG.:       | K.MCLAREN   | DATE:                 | 16-SEP-83  | K                       | PL                                    | M7469-0-DBP | A   |
|                  |            |     | (D)                     |    |        |              |                  |   | DATE:                 | 16-SEP-83  | RELEASE DATE: 19-OCT-83 |                                       |             |     |
|                  |            |     | (E)                     |    |        |              | MFG.ENG.:        | M.KRYSAK  | DATE:                 | 16-SEP-83  |                         |                                       |             |     |
|                  |            |     | (F)                     |    |        |              | ASSEMBLY NUMBER: | E-UA-M7469-0-00 <th>TOP DOCUMENT NUMBER:</th> <td>B-DD-M7469-0-00<th>FILE NAME:</th><td>Z3956A.PLS<th>EDIT #</th><td>9</td></td></td> | TOP DOCUMENT NUMBER:  | B-DD-M7469-0-00 <th>FILE NAME:</th> <td>Z3956A.PLS<th>EDIT #</th><td>9</td></td> | FILE NAME:              | Z3956A.PLS <th>EDIT #</th> <td>9</td> | EDIT #      | 9   |
|                  |            |     | (H)                     |    |        |              |                  |   |                       |  |                         |                                       |             |     |
|                  |            |     | (J)                     |    |        |              |                  |   |                       |  |                         |                                       |             |     |
|                  |            |     | (K)                     |    |        |              |                  |   |                       |  |                         |                                       |             |     |
|                  |            |     | (L)                     |    |        |              |                  |   |                       |  |                         |                                       |             |     |
|                  |            |     | (M)                     |    |        |              |                  |   |                       |  |                         |                                       |             |     |
|                  |            |     | (N)                     |    |        |              |                  |   |                       |  |                         |                                       |             |     |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."

AUTOMATED BY PRTLST.4Q(50)

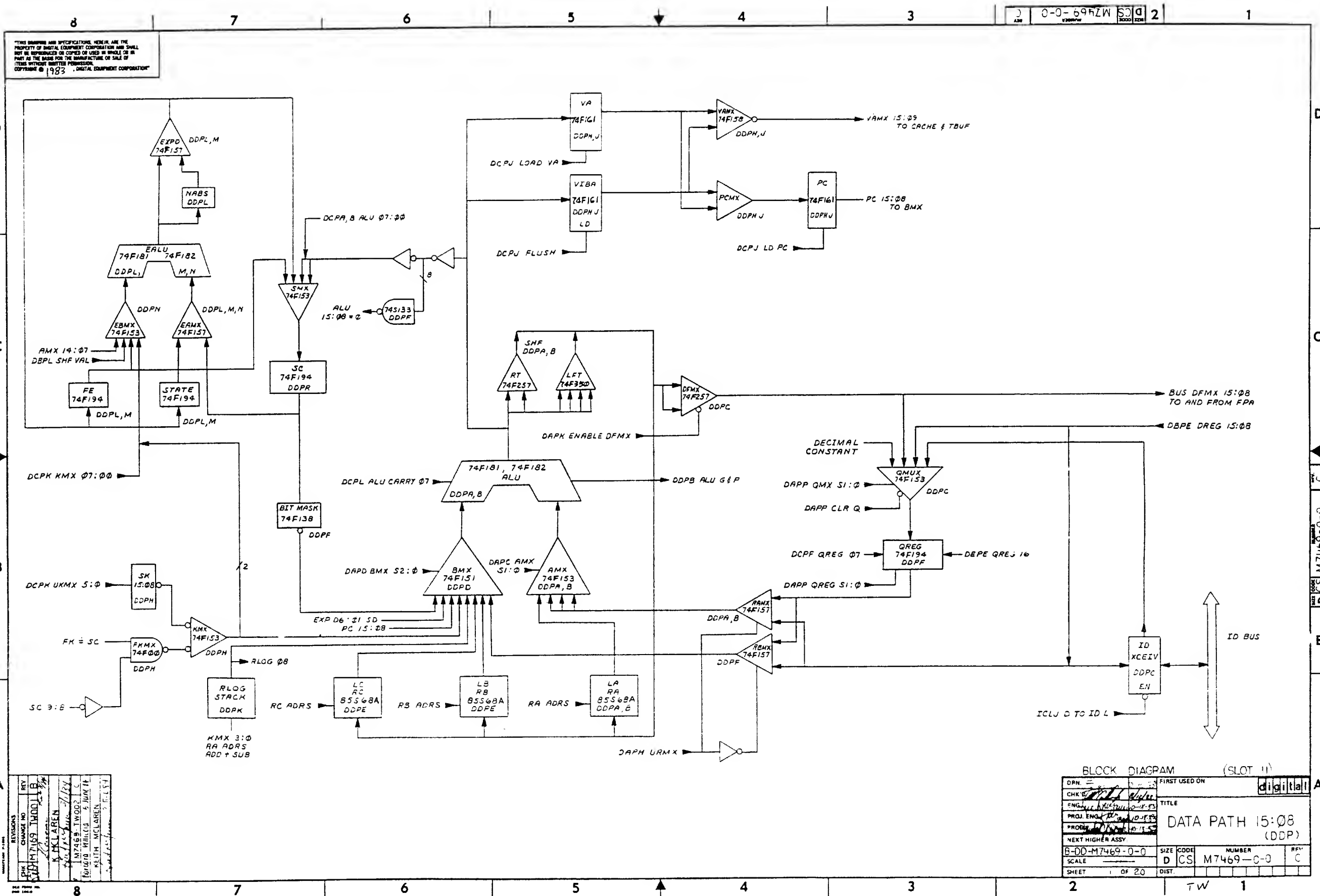
PARTS LIST

SHEET A2 OF A2

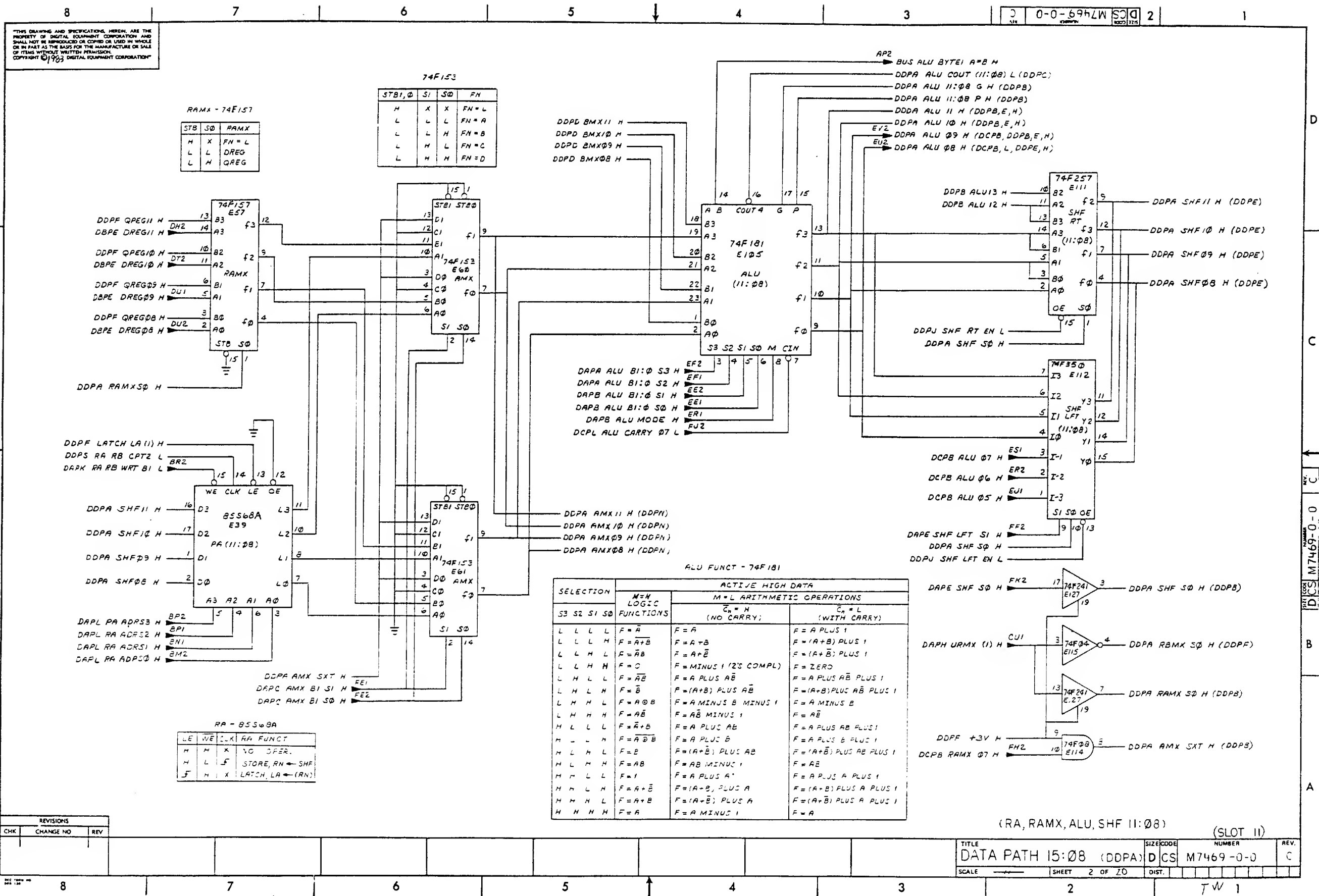
| LINE                      | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                    | QTY PER VARIATION | REFERENCE DESIGNATOR             |
|---------------------------|------|--------------|-------------|---------|--------------------------------|-------------------|----------------------------------|
| VARIATION REVISION LEVEL: |      |              |             |         |                                | 00                |                                  |
| 24                        | 24   |              | 1921325-01  |         | 74F181 ALU,4-BIT               | 5                 | E77,E94,E105,E129,E132           |
| 25                        | 25   |              | 1921326-01  |         | 74F182 CARRY LOOKAHEAD GEN.    | 2                 | E83,E130                         |
| 26                        | 26   |              | 1921327-01  |         | 74F194 SHIFT REG.UNIV,BIDIR    | 10                | E33,E54,E55,E59,E70,E74,E96,E99, |
| 27                        | 27   |              | 1921009-01  |         | 74F241 BUFFER/LINE DRIVER,N    | 2                 | E107,E110                        |
| 28                        | 28   |              | 1921330-01  |         | 74F257 MUX,QUAD,2-IN           | 4                 | E11,E127                         |
| 29                        | 29   |              | 1921333-01  |         | 74F283 BINARY FULL ADDER,4     | 1                 | E111,E113,E122,E124              |
| 30                        | 30   |              | 1911469-00  | DEC     | 8640 RECEIVER,8US,QUAD,U       | 1                 | E13                              |
| 31                        | 31   |              | 1912586-01  |         | 85S68A REGISTER,16X4 EDGE T    | 9                 | E36                              |
| 32                        | 32   |              | 1921322-01  |         | 74F161 BINARY COUNTER,PRES     | 6                 | E17,E18,E26,E28,E29,E37-E40      |
| 33                        | 33   |              | 1921334-01  |         | 74F350 SHIFTER,4-8IT           | 2                 | E90,E91,E93,E101,E102,E104       |
| 34                        | 34   |              | 1913788-00  |         | 26S10 TRANSCEIVER,8US,QUA      | 2                 | E112,E123                        |
| 35                        | 35   |              | 1921720-01  | 10H125  | TRANSLATOR ECL TO TTL QUA      | 2                 | E47,E79                          |
| 36                        | 36   |              | 2303782-00  | 82-03   |                                | 1                 | E46,E67                          |
| 37                        | 37   |              | 2303982-00  | 82-03   |                                | 1                 | E119                             |
| 38                        | 38   |              | 1921008-01  |         | 74F240 BUFFER/LINE DRIVER,I    | 1                 | E16                              |
| 39                        | 39   |              | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS | 1                 | E6                               |
| 40                        | 40   |              | 9000024-01  |         | EYELET,ROLLED 0.1210DX0.192    | 12                |                                  |
| 41                        | 41   |              | 9105740-55  |         | WIRE(WRAP) 30AWG KYNAR UL14    | A/R               |                                  |
| 42                        | 42   |              | 1616653-01  |         | DELAY= 100NS,10TAPS WITH TTLBU | 1                 | E82                              |

43 NOTE: IC SPARE E116,E125

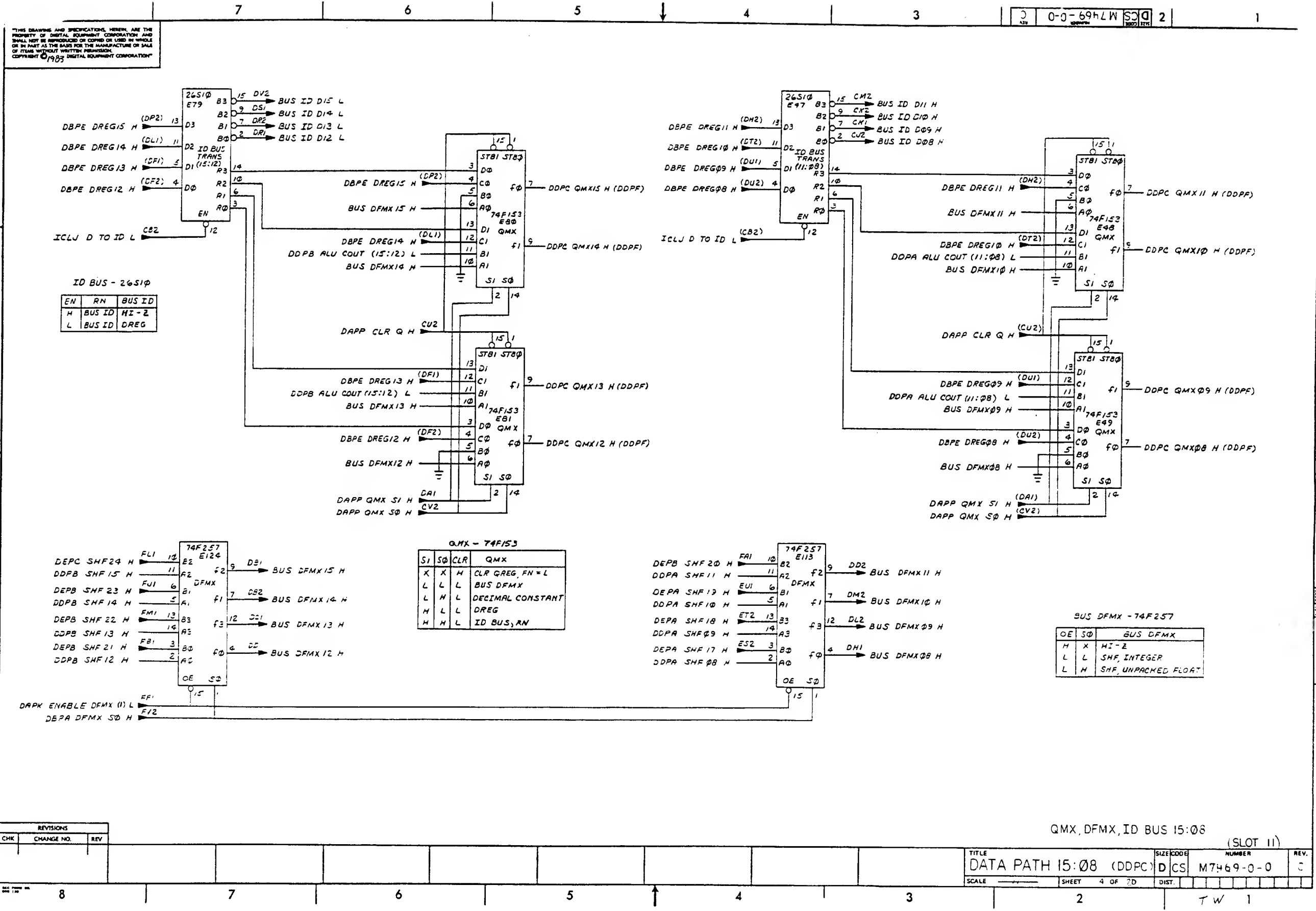
|   |   |   |   |   |   |   |       |                          |                |      |      |                 |     |
|---|---|---|---|---|---|---|-------|--------------------------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE | DATA PATH 15:08<br>(DDP) | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   |       |                          |                | K    | PL   | M7469-0-DBP     | A   |



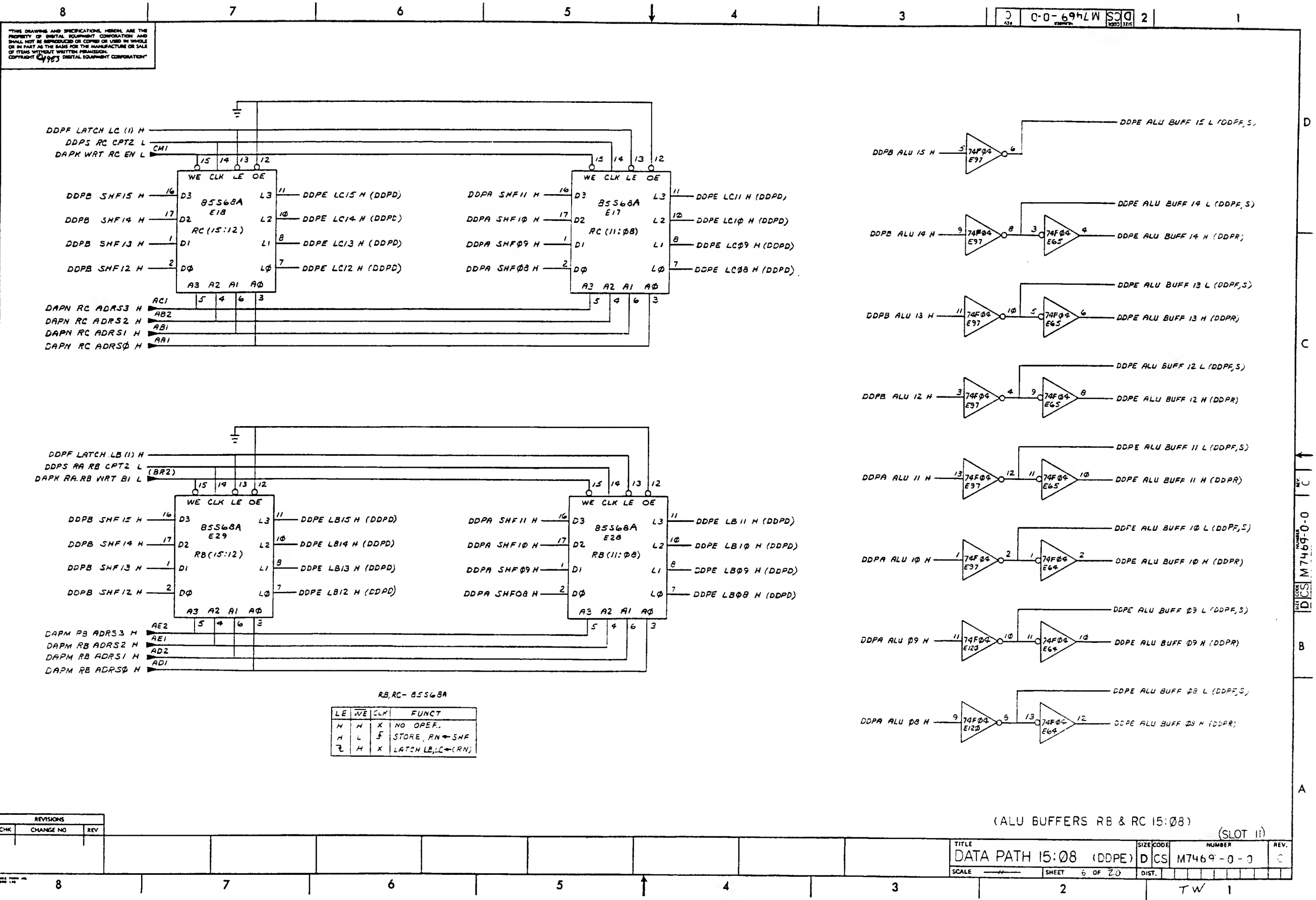
|                         |           |                       |     |
|-------------------------|-----------|-----------------------|-----|
| BLOCK DIAGRAM (SLOT 11) |           | FIRST USED ON         |     |
| OPN =                   |           | digital               |     |
| CHK'D                   |           | TITLE                 |     |
| ENG                     |           | DATA PATH 15:08 (DDP) |     |
| PROJ ENG                |           | D CS M7469-0-0        |     |
| PROB                    |           | SHEET 1 OF 20         |     |
| NEXT HIGHER ASSY        |           | DIST.                 |     |
| B-00-M7469-0-0          | SIZE CODE | NUMBER                | REV |
| SCALE                   | D CS      | M7469-0-0             | C   |
| SHEET 1 OF 20           |           |                       |     |





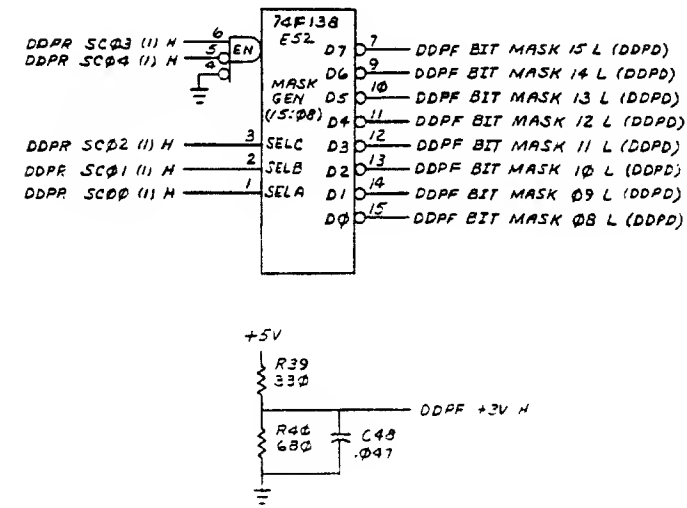
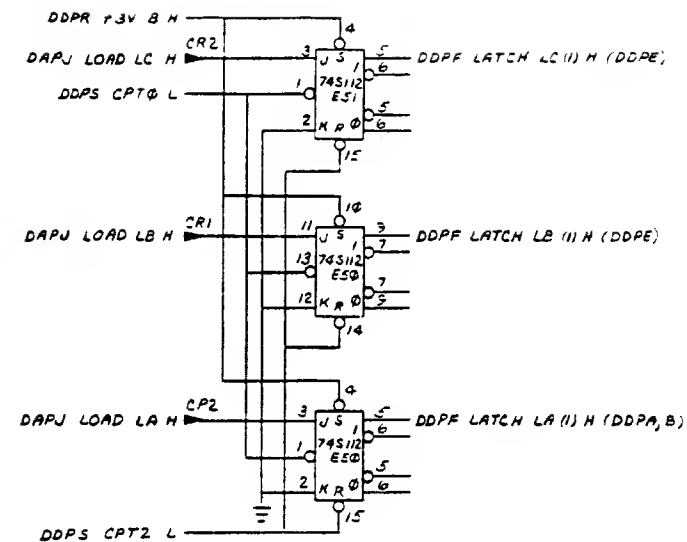
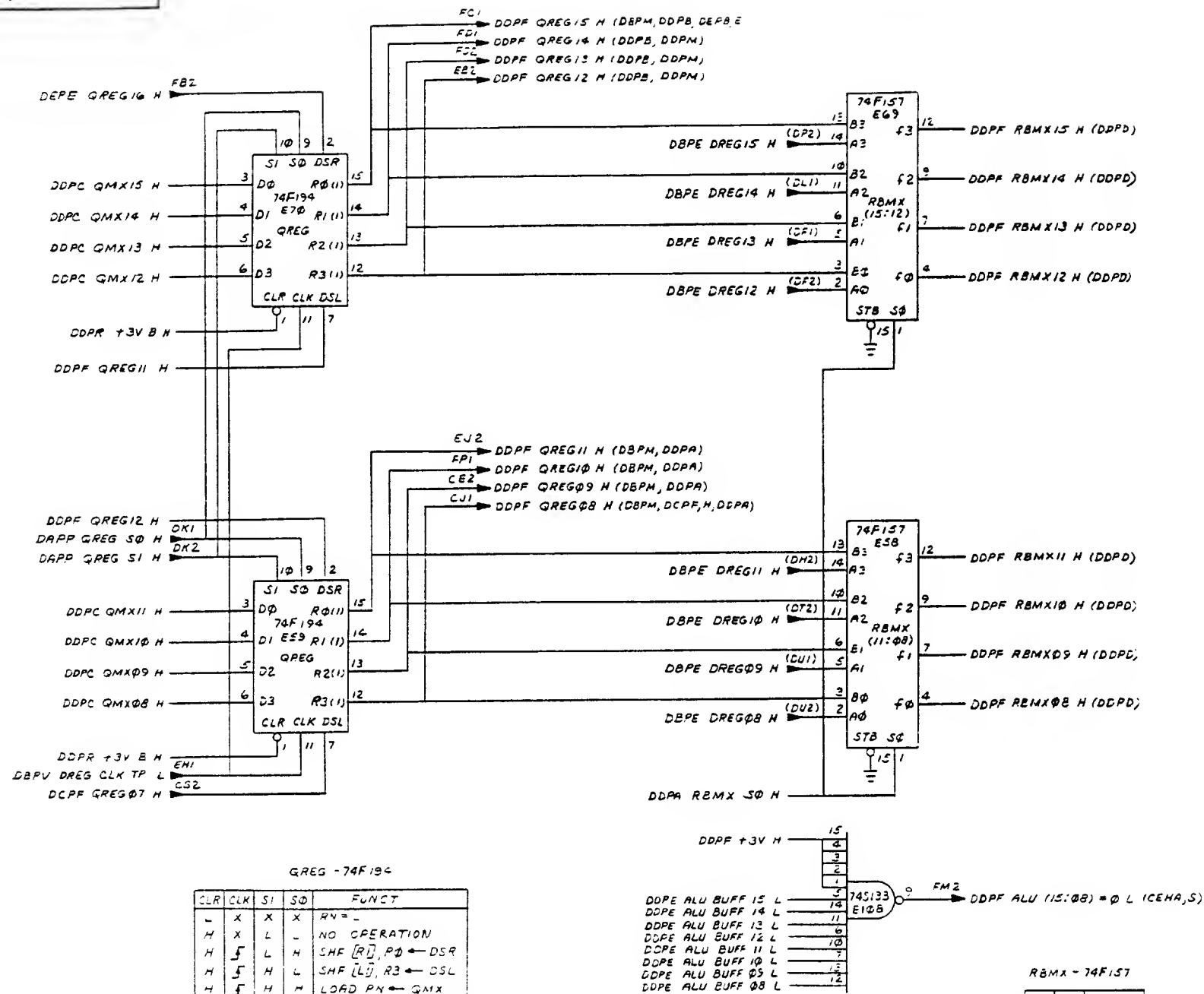








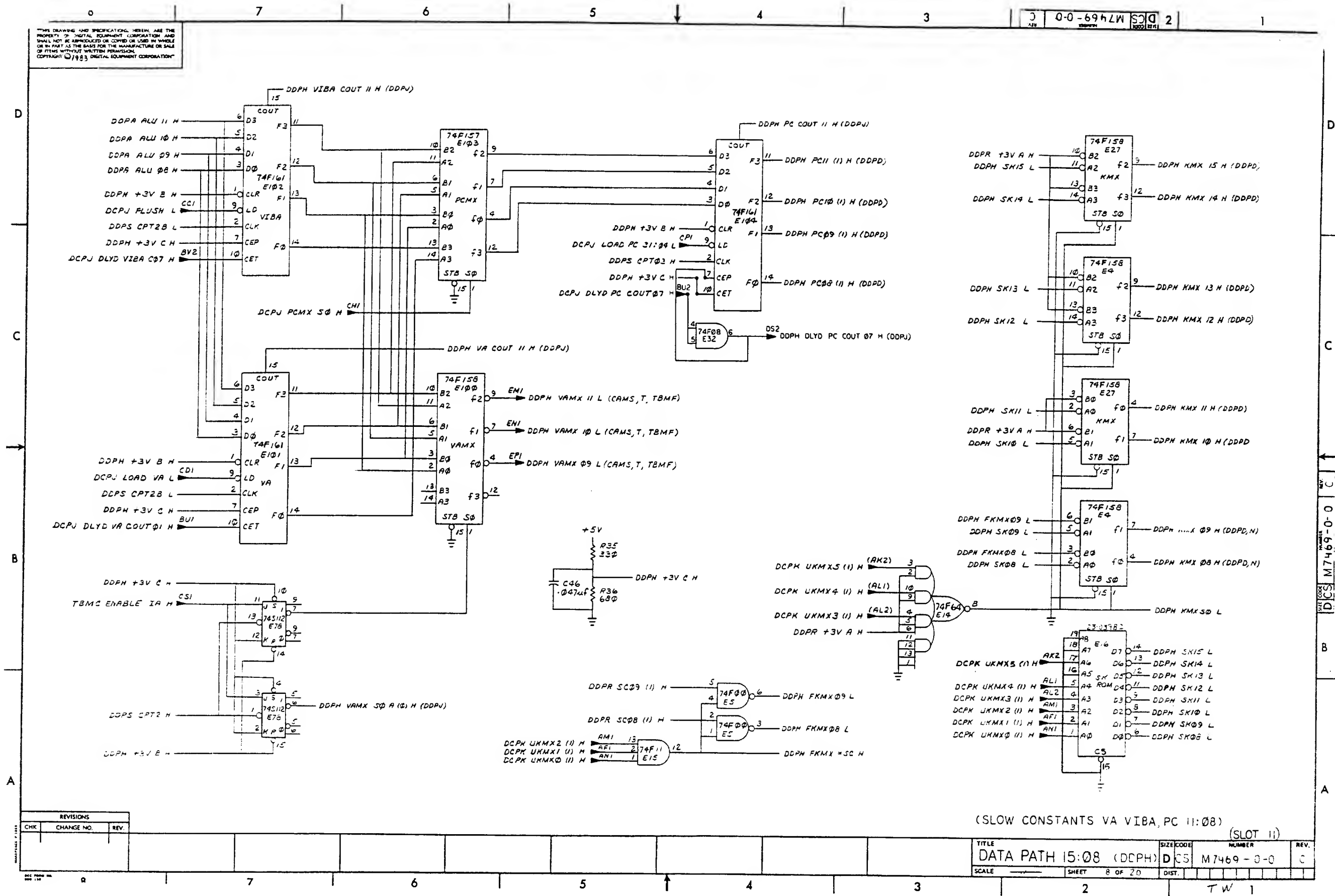
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION



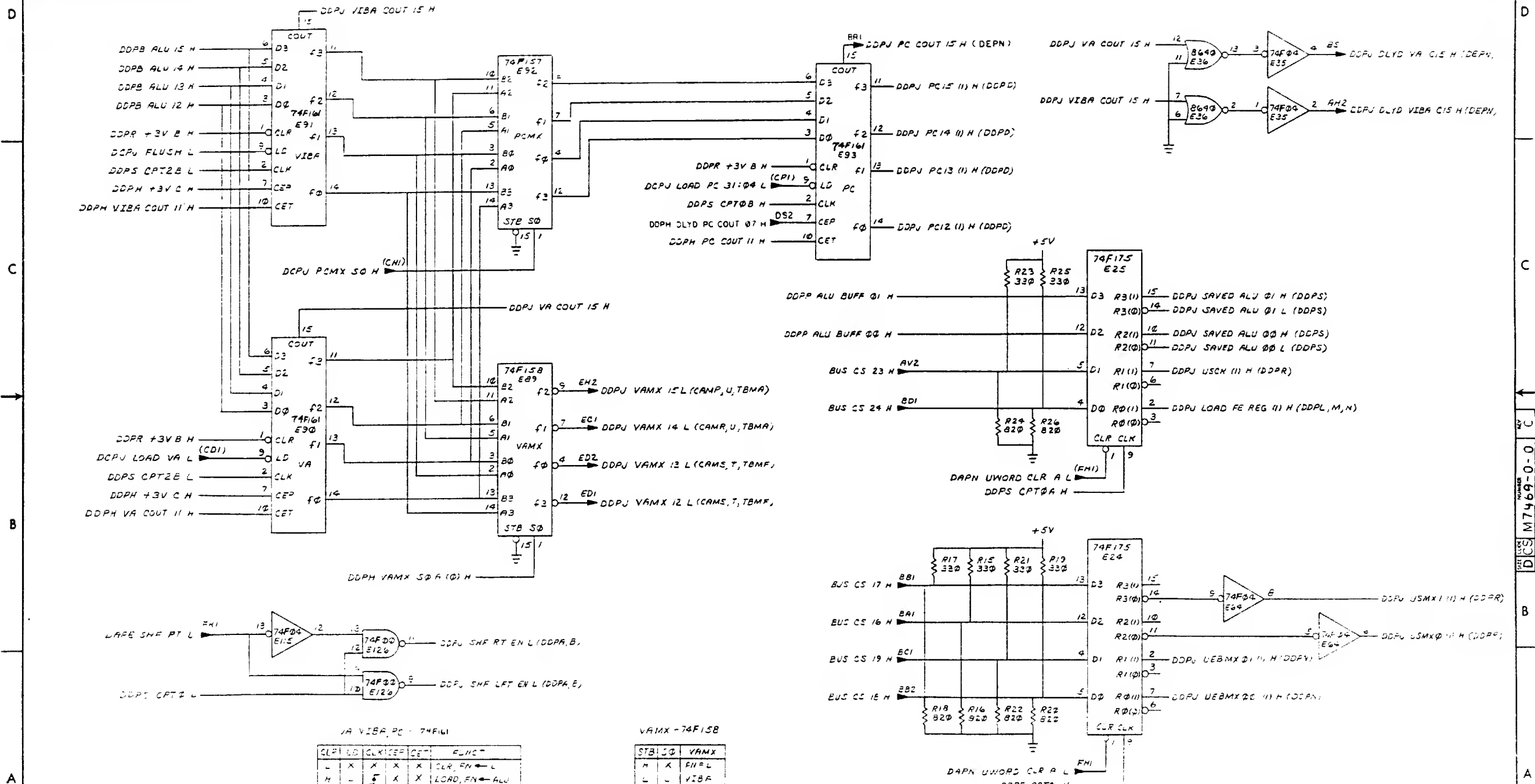
| REVISIONS |           |     |
|-----------|-----------|-----|
| CHK       | CHANGE NO | REV |
|           |           |     |

|                        |         |           |           |      |
|------------------------|---------|-----------|-----------|------|
| TITLE                  |         | SIZE CODE | NUMBER    | REV. |
| DATA PATH 15:08 (DDPF) |         | D CS      | M7469-0-0 | C    |
| SCALE                  | SHEET   | DIST.     |           |      |
|                        | 7 OF 20 |           |           |      |

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION



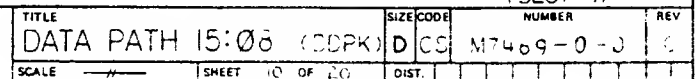
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1975 DIGITAL EQUIPMENT CORPORATION



| REVISIONS |           |     |
|-----------|-----------|-----|
| CHK       | CHANGE NO | REV |
|           |           |     |

| CLR | LD | CLK | CEP | CE | FUNC           |
|-----|----|-----|-----|----|----------------|
| L   | X  | X   | X   | X  | CLR, FN ← L    |
| H   | L  | S   | X   | X  | LOAD, FN ← ALU |
| H   | H  | S   | H   | L  | INC, FN ← FN   |
| H   | H  | S   | H   | H  | INC, FN ← FN+1 |

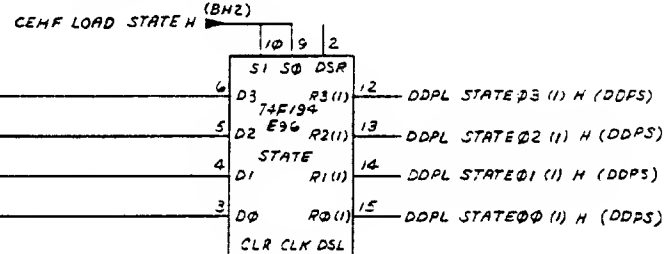
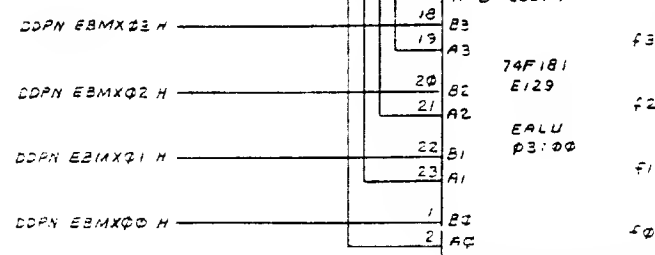
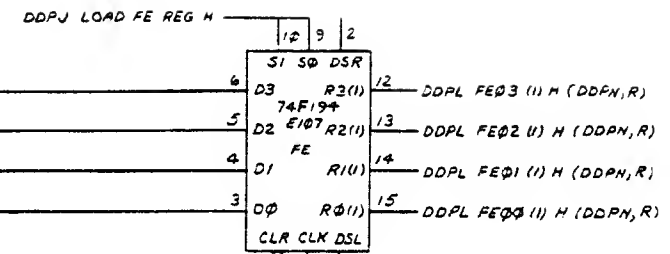
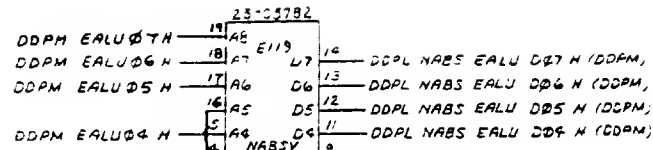
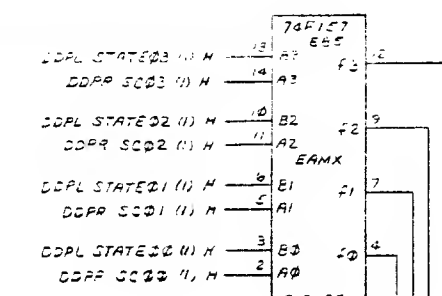
| STB | LD | VAMX   |
|-----|----|--------|
| H   | X  | FN ← L |
| L   | L  | VIBA   |
| L   | H  | VA     |



THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION  
COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION

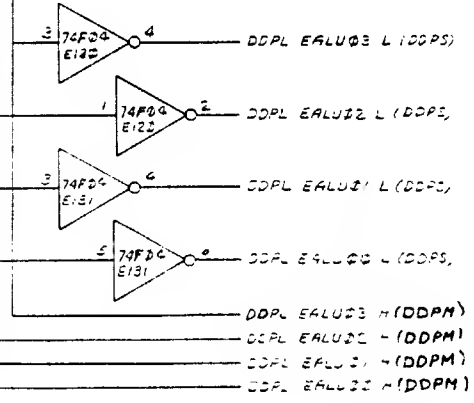
EMMX-74F157

| STB | SD | EXP  | MUX |
|-----|----|------|-----|
| M   | X  | FN=L |     |
| L   | L  | NABS |     |
| L   | M  | EALU |     |



EALU FUNC DECODE

| FUNC        | M | FIN | GB | GL | GI | GD |
|-------------|---|-----|----|----|----|----|
| A           | M | L   | M  | M  | M  | M  |
| A.G.T.B     | M | L   | M  | M  | M  | M  |
| A.AND NOT.B | M | L   | M  | M  | M  | M  |
| B           | M | L   | M  | M  | M  | M  |
| A.FULL 1    | L | M   | M  | M  | M  | M  |
| A.FULL 2    | L | M   | M  | M  | M  | M  |
| A.FULL 3    | L | M   | M  | M  | M  | M  |
| A.FULL 4    | L | M   | M  | M  | M  | M  |
| A.FULL 5    | L | M   | M  | M  | M  | M  |
| A.FULL 6    | L | M   | M  | M  | M  | M  |
| A.FULL 7    | L | M   | M  | M  | M  | M  |



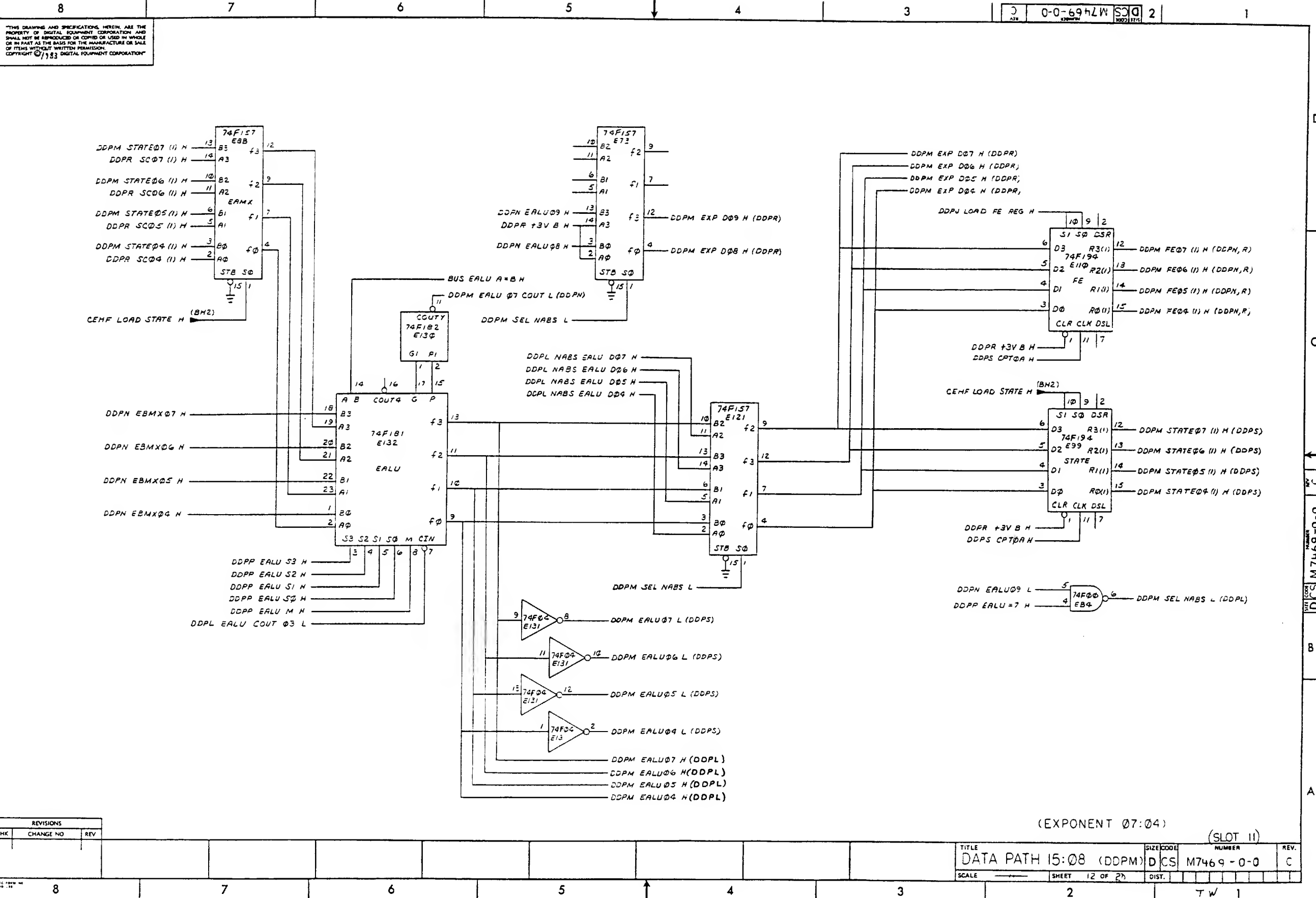
EXP. MUX-74F157

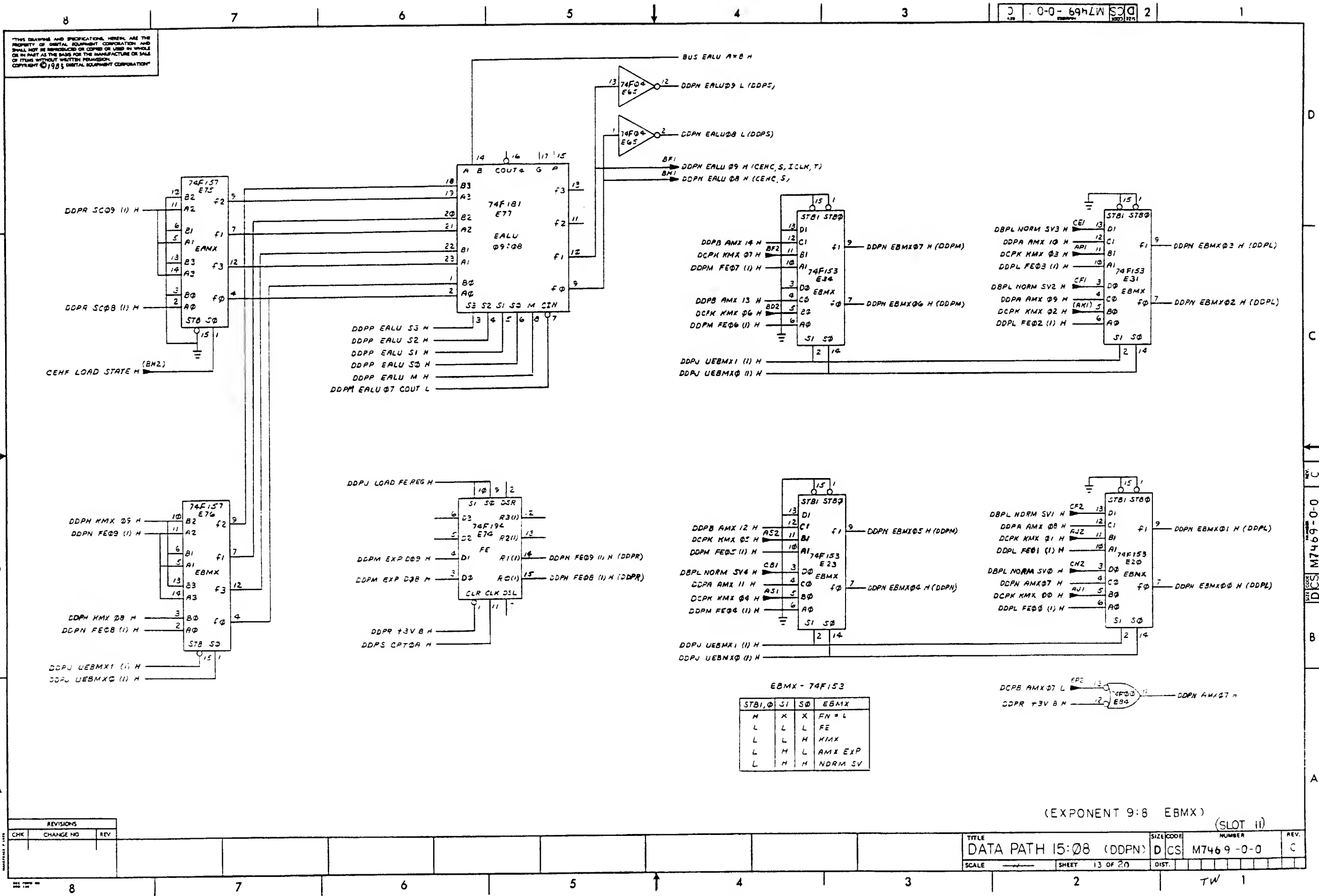
| STB | SD | EXP  | MUX |
|-----|----|------|-----|
| M   | X  | FN=L |     |
| L   | L  | NABS |     |
| L   | M  | EALU |     |

EXPONENT 03:00 (SLOT 11)

| REVISIONS |
|-----------|
| CHK       |
| CHANGE NO |
| REV       |

| TITLE                  | SIZE           | CODE  | NUMBER    | REV. |
|------------------------|----------------|-------|-----------|------|
| DATA PATH 15:08 (DDPL) | D              | CS    | M7469-0-0 |      |
| SCALE                  | SHEET 11 OF 20 | DIST. |           |      |





THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION

| REVISIONS |           |     |
|-----------|-----------|-----|
| CHK       | CHANGE NO | REV |
|           |           |     |

| TITLE                  |                | SIZE/CODE | NUMBER    | REV. |
|------------------------|----------------|-----------|-----------|------|
| DATA PATH 15:08 (DDPN) |                | D CS      | M7469-0-0 | C    |
| SCALE                  | SHEET 13 OF 20 | DIST.     |           |      |





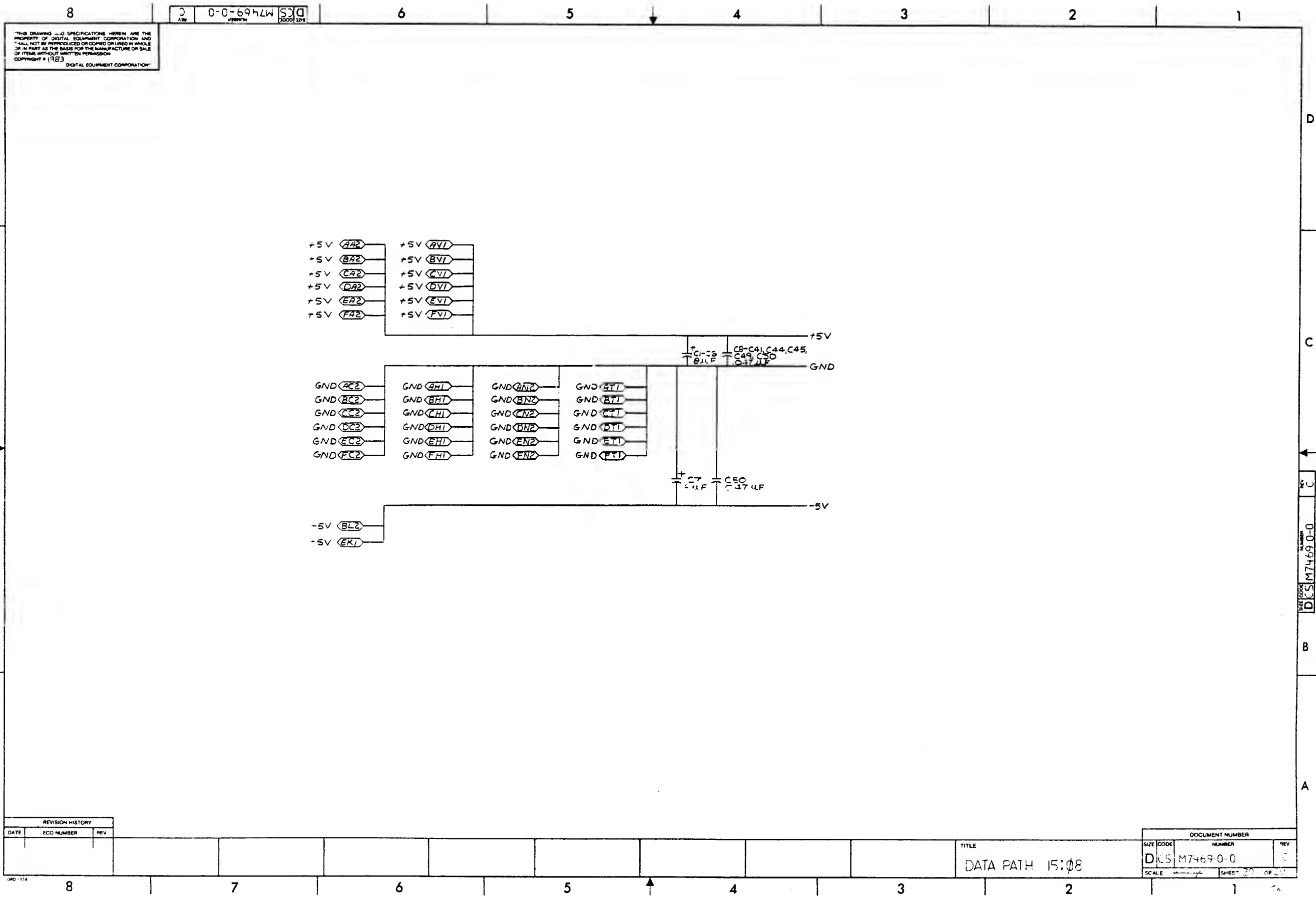












| REVISION HISTORY |            |     |
|------------------|------------|-----|
| DATE             | ECO NUMBER | REV |
|                  |            |     |
|                  |            |     |

TITLE  
DATA PATH 15:08

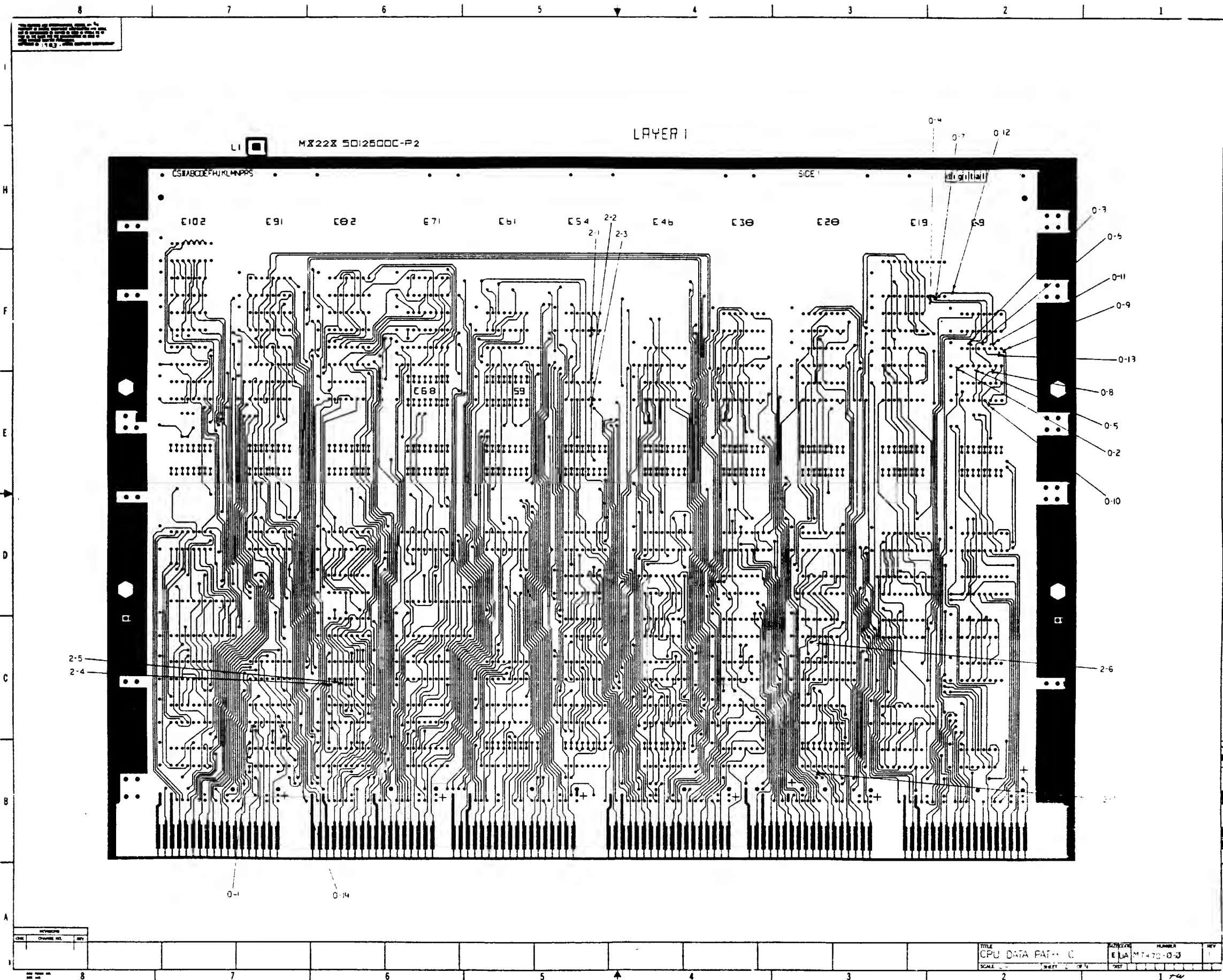
| DOCUMENT NUMBER |       |           |
|-----------------|-------|-----------|
| SIZE            | CODE  | NUMBER    |
| D               | K     | M7469-0-0 |
| SCALE           | SHEET | 20 OF 20  |

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

COPYRIGHT© 1983 DIGITAL EQUIPMENT CORPORATION

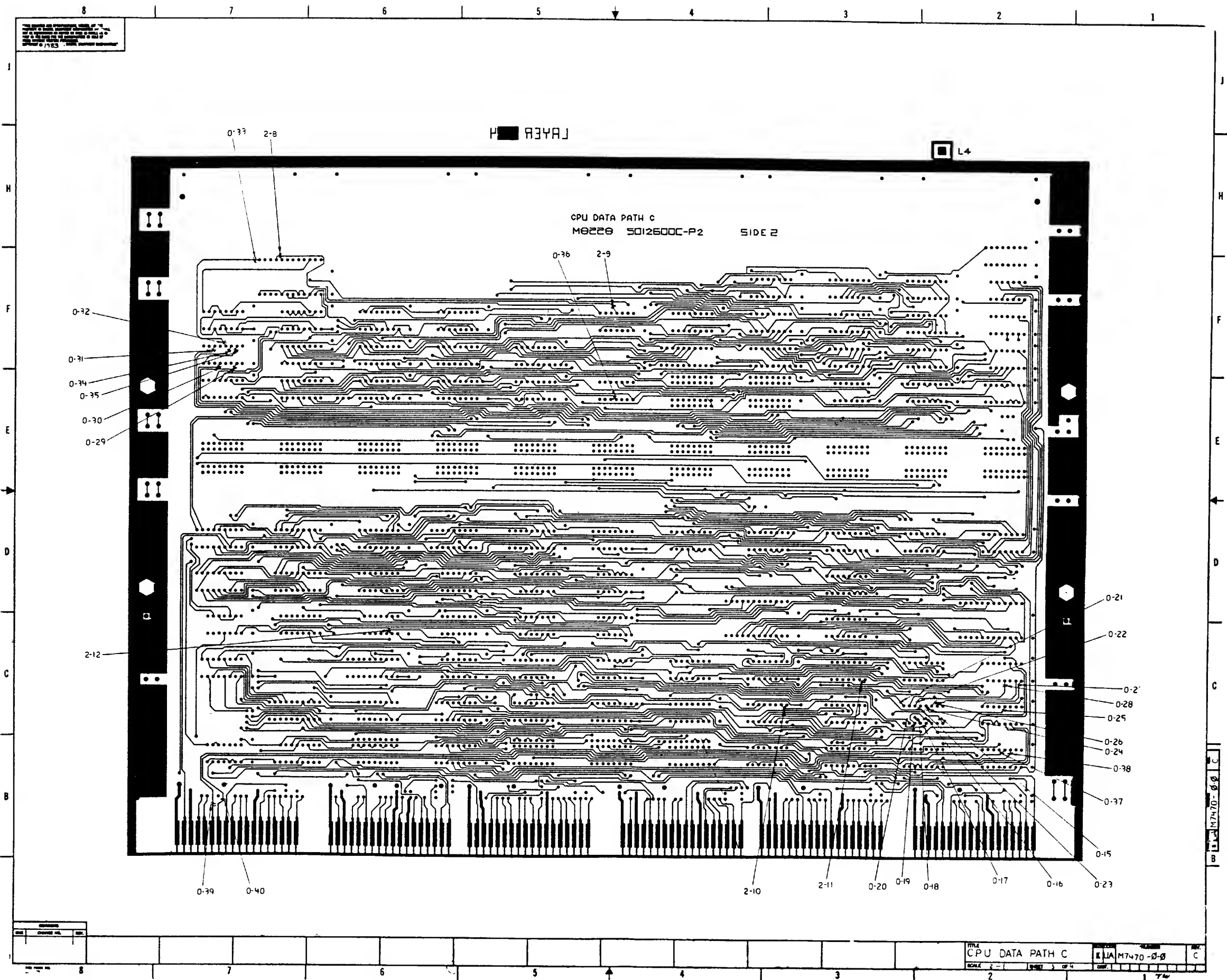






| REV | DATE | BY | CHK | APP |
|-----|------|----|-----|-----|
| 1   |      |    |     |     |

|                   |  |       |  |           |  |
|-------------------|--|-------|--|-----------|--|
| TITLE             |  | DRAWN |  | REV       |  |
| CPU DATA PATH - C |  | EUA   |  | M7-70-0-3 |  |
| SCALE             |  | SHEET |  | OF 11     |  |
|                   |  | 1     |  | 1         |  |





|    |    |                  |            |        |                           |      |                                 |
|----|----|------------------|------------|--------|---------------------------|------|---------------------------------|
| 1  | 1  | E-MD-5012600-0-0 | 5012600-00 | M8228  |                           | 1    |                                 |
| 2  | 2  |                  | 1921307-01 | 74F04  | HEX INVERTER              | 6    | E22,E31,E54,E99,E100,E101       |
| 3  | 3  |                  | 1921308-01 | 74F08  | AND GATE,QUAD,2-IN        | 2    | E53,E84                         |
| 4  | 4  |                  | 1921309-01 | 74F10  | NAND GATE,TRIPLE,3-I      | 1    | E33                             |
| 5  | 5  |                  | 1921310-01 | 74F11  | AND GATE,TRIPLE,3-IN      | 2    | E49,E94                         |
| 6  | 6  |                  | 1921313-01 | 74F64  | AND OR INVERT GATE,4-     | 5    | E1,E41,E42,E48,E50              |
| 7  | 7  |                  | 1910545-00 | 74S112 | FF-JK DUAL,EDGE TRIG      | 2    | E12,E23                         |
| 8  | 8  |                  | 1911983-00 | 74S133 | NAND GATE-POSITIVE 1      | 1    | E102                            |
| 9  | 9  |                  | 1921316-01 | 74F138 | DECODER/DEMUX,1-OF-8      | 1    | E24                             |
| 10 | 10 |                  | 1921318-01 | 74F151 | MUX,8-IN                  | 8    | E16,E17,E26,E27,E36,E37,E45,E46 |
| 11 | 11 |                  | 1921319-01 | 74F153 | MUX,DUAL,4-IN             | 12   | E9,E18,E57,E61,E66,E71,E88,E90, |
|    |    |                  |            |        |                           |      | E91,E98,E59,E68                 |
| 12 | 12 |                  | 1921320-01 | 74F157 | MUX,QUAD,2-IN             | 5    | E70,E73,E80,E81,E89             |
| 13 | 13 |                  | 1921321-01 | 74F158 | MUX,QUAD,2-IN             | 2    | E2,E10                          |
| 14 | 14 |                  | 1921324-01 | 74F175 | FF-D,QUAD                 | 3    | E20,E47,E55                     |
| 15 | 15 |                  | 1921325-01 | 74F181 | ALU,4-BIT                 | 3    | E19,E65,E95                     |
| 16 | 16 |                  | 1921326-01 | 74F182 | CARRY LOOKAHEAD GEN.      | 2    | E64,E85                         |
| 17 | 17 |                  | 1921327-01 | 74F194 | SHIFT REG.UNIV,BIDIR      | 4    | E28,E38,E69,E82                 |
| 18 | 18 |                  | 1921008-01 | 74F240 | 8UFFER/LINE DRIVER,I      | 1    | E21                             |
| 19 | 19 |                  | 1921009-01 | 74F241 | 8UFFER/LINE DRIVER,N      | 1    | E60                             |
| 20 | 20 |                  | 1921330-01 | 74F257 | MUX,QUAD,2-IN             | 4    | E56,E62,E77,E86                 |
| 21 | 21 |                  | 1921720-01 | 10H125 | TRANSLATOR ECL TO TTL     | 2    | E39,E40                         |
| 22 | 22 |                  | 1913788-00 | 26S10  | TRANSCEIVER,8US,QUA       | 2    | E29,E30                         |
| 23 | 23 |                  | 1921322-01 | 74F161 | 8INARY COUNTER,PRES       | 8    | E7,E63,E72,E75,E83,E92,E93,E51  |
| 24 | 24 | 8LANK            |            | ***    | THIS ITEM IS NOT USED *** | -    |                                 |
| 25 | 25 |                  | 1912586-01 | 85S68A | REGISTER,16X4 EDGE T      | 6    | E4,E5,E13,E14,E34,E43           |
| 26 | 26 |                  | 1921334-01 | 74F350 | SHIFTER,4-8IT             | 2    | E76,E96                         |
| 27 | 27 |                  | 2303882-00 | 82-03  |                           | 1    | E11                             |
| 28 | 28 |                  | 1300247-00 | 120.0  | .25 W 5.0 %               | CF 4 | R25,R26,R29,R30                 |
| 29 | 29 |                  | 1300250-00 | 150.0  | .25 W 5.0 %               | CF 4 | R23,R24,R27,R28                 |

|                  |             |     |                         |  |                  |            |                      |                         |      |             |     |
|------------------|-------------|-----|-------------------------|--|------------------|------------|----------------------|-------------------------|------|-------------|-----|
| REVISION HISTORY |             |     | BASIC PART NO: M7470    |  | DRN:             | F.SMART    | DATE: 26-JUL-83      | D I G I T A L           |      |             |     |
| ENG              | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D:           | F.GAROFALO | DATE: 17-AUG-83      | TITLE PARTS LIST        |      |             |     |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  |                  |            |                      | DATA PATH 07:00         |      |             |     |
| KM               | M7470-TW001 | B   | (A) 00                  |  |                  |            |                      | (DCP)                   |      |             |     |
| KM               | M7470-TW002 | C   | (B)                     |  | DES.ENG:         | K.MCLAREN  | DATE: 17-AUG-83      | DOCUMENT NUMBER         |      |             |     |
|                  |             |     | (C)                     |  |                  |            |                      | SIZE                    | CODE | NUMBER      | REV |
|                  |             |     | (D)                     |  | RESP.ENG.:       | K.MCLAREN  | DATE: 17-AUG-83      | K                       | PL   | M7470-0-DP8 | C   |
|                  |             |     | (E)                     |  |                  |            |                      |                         |      |             |     |
|                  |             |     | (F)                     |  | MFG.ENG.:        | M.KRYSAK   | DATE: 17-AUG-83      | RELEASE DATE: 16-JUL-84 |      |             |     |
|                  |             |     | (H)                     |  |                  |            |                      |                         |      |             |     |
|                  |             |     | (J)                     |  | ASSEMBLY NUMBER: |            | TOP DOCUMENT NUMBER: | FILE NAME:              |      | EDIT #      |     |
|                  |             |     | (K)                     |  | E-UA-M7470-0-0   |            | B-DD-M7470-0-0       | Z3948C.PLS              |      | 15          |     |
|                  |             |     | (L)                     |  |                  |            |                      |                         |      |             |     |
|                  |             |     | (M)                     |  |                  |            |                      |                         |      |             |     |
|                  |             |     | (N)                     |  |                  |            |                      |                         |      |             |     |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."

AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

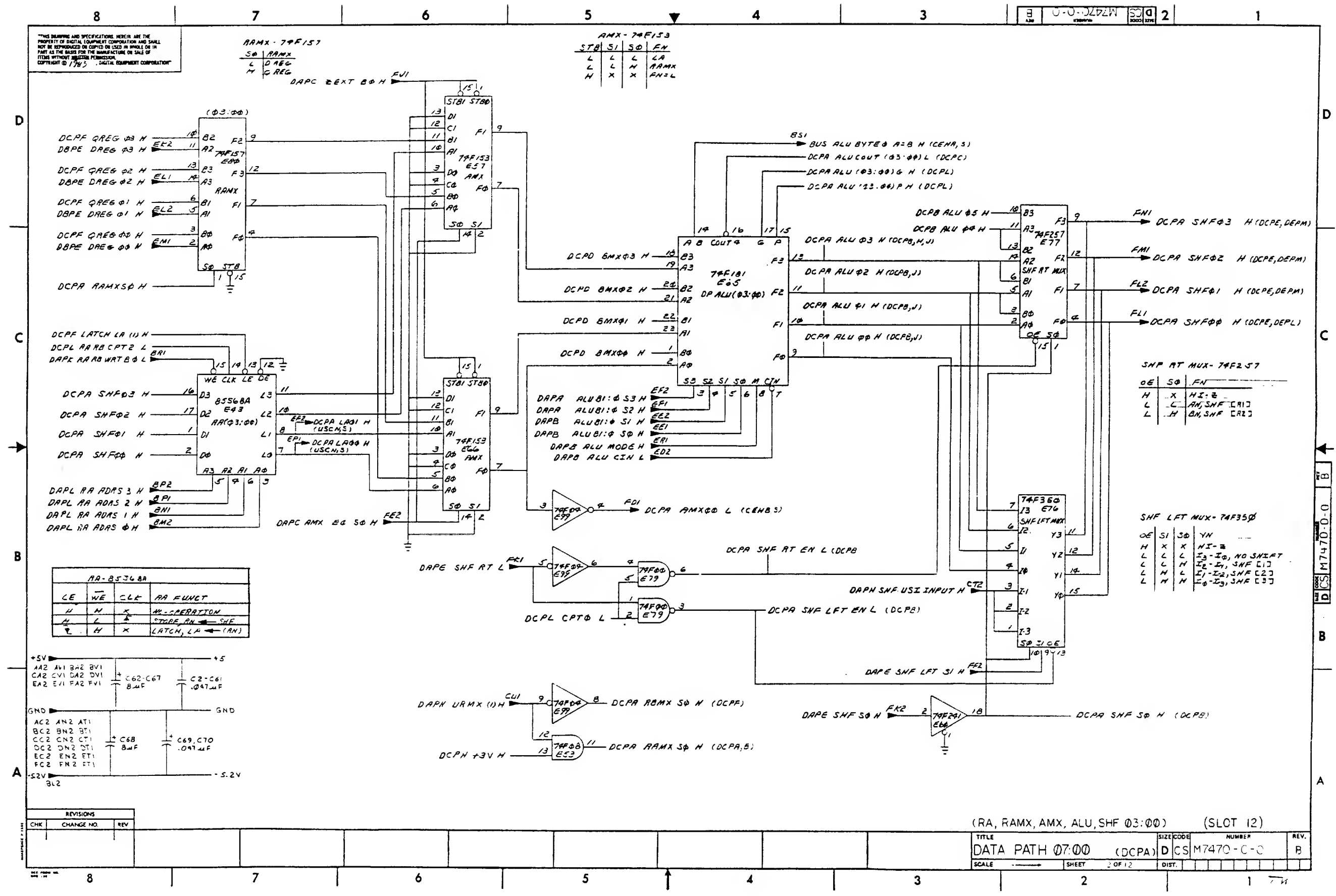
SHEET A2 OF A2

| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                     | VARIATION | REVISION LEVEL | QTY PER VARIATION | REFERENCE DESIGNATOR                            |
|------|------|--------------|-------------|---------|---------------------------------|-----------|----------------|-------------------|---|
|      |      |              |             |         |                                 |           |                |                   |   |
| 30   | 30   |              | 1300295-00  |         | 330.0 .25 W 5.0 % CF            |           |                | 11                | CONT R1,R3,R5,R7,R9,R11,R13,R15,R17,R19,R21     |
| 31   | 31   |              | 1301424-00  |         | 680.0 .25 W 5.0 % CF            |           |                | 1                 |   |
| 32   | 32   |              | 1301775-00  |         | 820.0 .25 W 5.0 % CF            |           |                | 10                | CONT R2<br>R4,R6,R8,R10,R12,R14,R16,R18,R20,R22 |
| 33   | 33   |              | 1012084-01  |         | 8 MFD 25V +75-10% AL EL         |           |                | 7                 |   |
| 34   | 34   |              | 1012784-00  |         | .047 MFD 50V +80-20% CER        |           |                | 63                | C62-C68<br>C1,C2-C61,C69,C70                    |
| 35   | 35   |              | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN       |           |                | 3                 |   |
| 36   | 36   |              | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS  |           |                | 1                 | E3,E74,E79                                      |
| 37   | 37   |              | 9000024-01  |         | EYELET,ROLLED 0.1210DX0.192     |           |                | 12                |   |
| 38   | 38   |              | 9105740-55  |         | WIRE(WRAP) 30AWG KYNAR UL14 A/R |           |                |                   | E44   |
| 39   | 39   |              | 1921306-01  |         | 74F02 NOR GATE,QUAD,2-IN        |           |                | 1                 |   |

40 NOTE: E6,E15,E25,E52,E58,E67,E78,E87,E97,E35,E32. ARE SPARE I.C.  
41 NOTE: R31,R32,R33,R34,AND E8 ARE ENGINEERING OPTIONS. DO NOT INSERT.

|               |       |                          |                |      |      |                 |     |
|---------------|-------|--------------------------|----------------|------|------|-----------------|-----|
| D I G I T A L | TITLE | DATA PATH 07:00<br>(DCP) | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|               |       |                          |                | K    | PL   | M7470-0-DP8     | C   |





THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1975, DIGITAL EQUIPMENT CORPORATION

RAMX - 74F157

| SO | RAMX  |
|----|-------|
| L  | DREG  |
| H  | C REG |

AMX - 74F153

| STB | SI | SO | FN   |
|-----|----|----|------|
| L   | L  | L  | LA   |
| L   | L  | H  | RAMX |
| H   | X  | X  | FN=L |

SHF RT MUX - 74F257

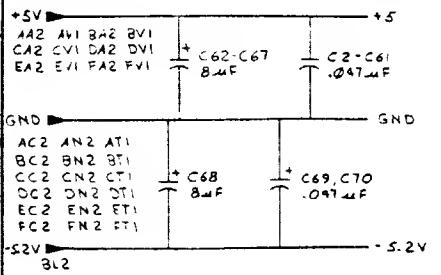
| OE | SO | FN           |
|----|----|--------------|
| H  | X  | HI-B         |
| L  | L  | AM, SHF [R1] |
| L  | H  | AM, SHF [R2] |

SHF LFT MUX - 74F350

| OE | SI | SO | YN  |
|----|----|----|---|
| H  | X  | X  | HI-B                                      |
| L  | L  | L  | I <sub>3</sub> -I <sub>0</sub> , NO SHIFT |
| L  | L  | H  | I <sub>3</sub> -I <sub>1</sub> , SHF [1]  |
| L  | H  | L  | I <sub>1</sub> -I <sub>2</sub> , SHF [2]  |
| L  | H  | H  | I <sub>0</sub> -I <sub>3</sub> , SHF [3]  |

AA-85368A

| LE | WE | CE | AA FUNCT       |
|----|----|----|----------------|
| H  | H  | X  | AL-OPERATION   |
| H  | L  | X  | STORE, AN-SHE  |
| L  | H  | X  | LATCH, LA (AN) |



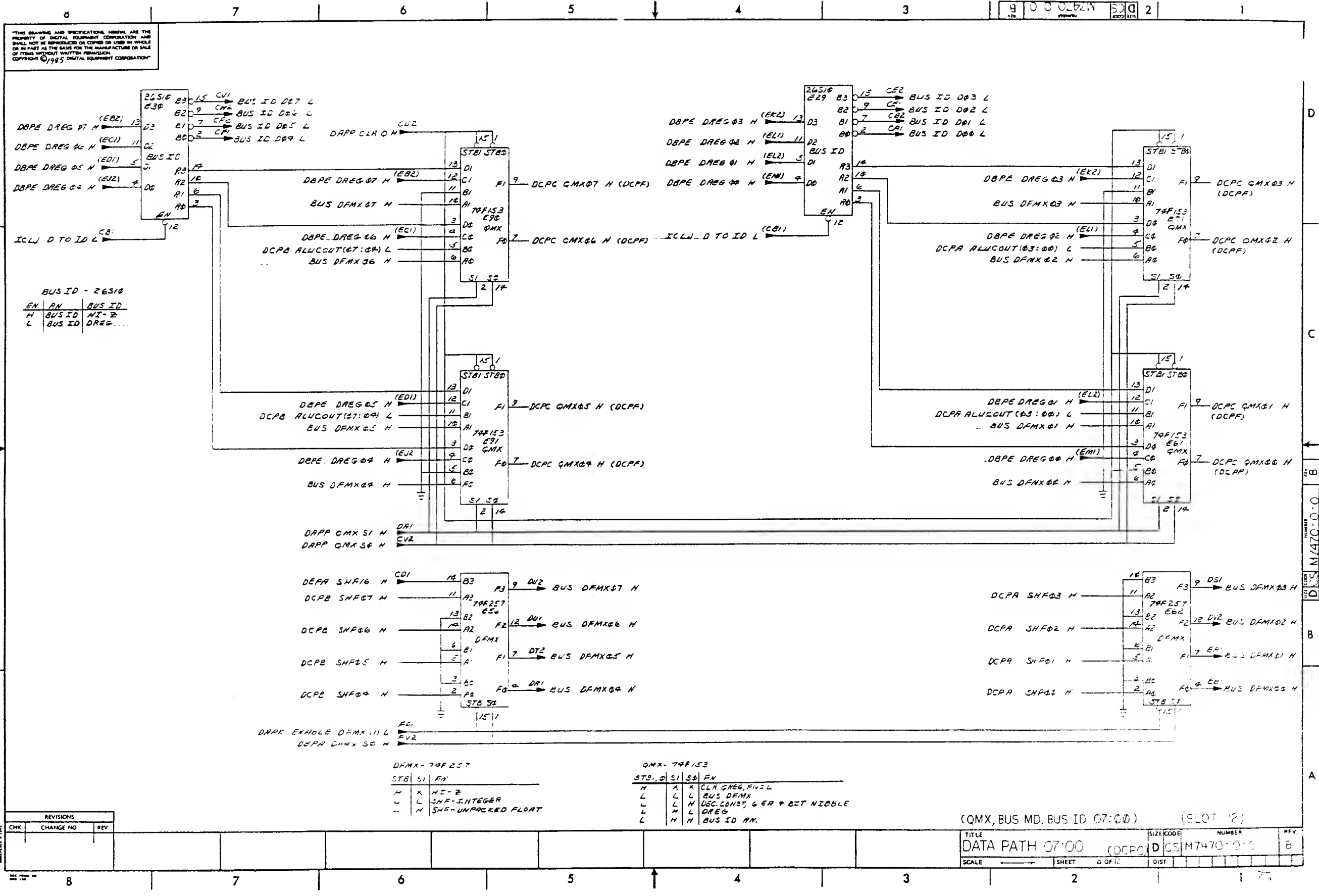
REVISIONS

| CHK | CHANGE NO. | REV |
|-----|------------|-----|
|     |            |     |

|                                 |  |                  |                     |
|---------------------------------|--|------------------|---------------------|
| (RA, RAMX, AMX, ALU, SHF 03:00) |  | (SLOT 12)        |                     |
| TITLE<br>DATA PATH 07:00 (DCPA) |  | SIZE/CODE<br>DCS | NUMBER<br>M7470-C-0 |
| SCALE                           |  | SHEET<br>2 OF 12 | REV.<br>B           |

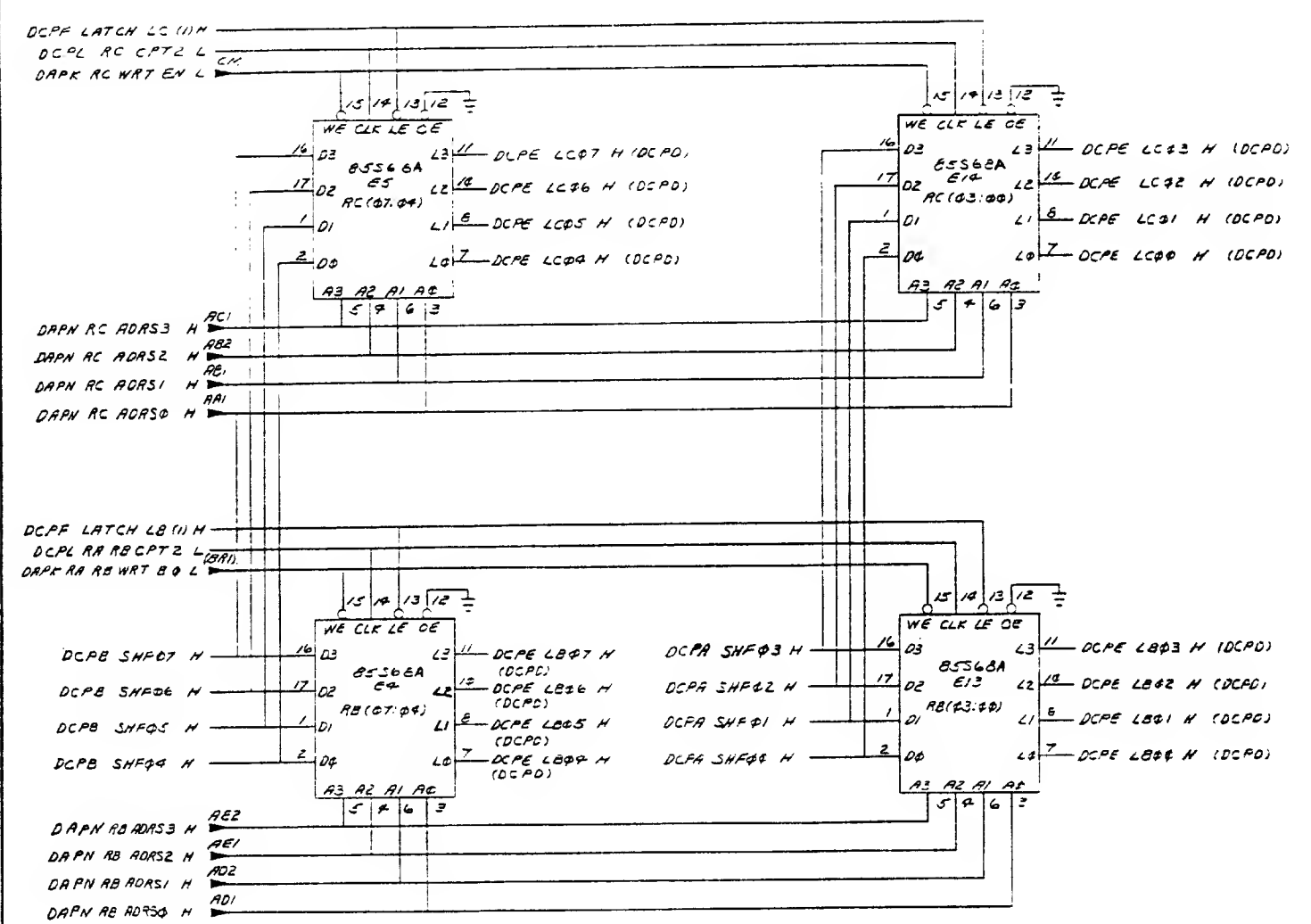






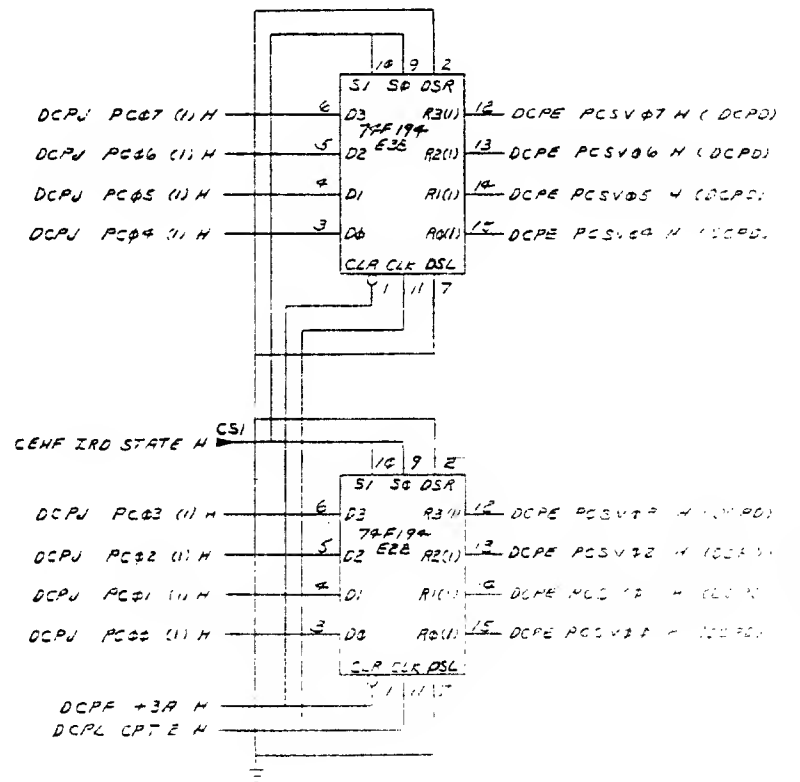
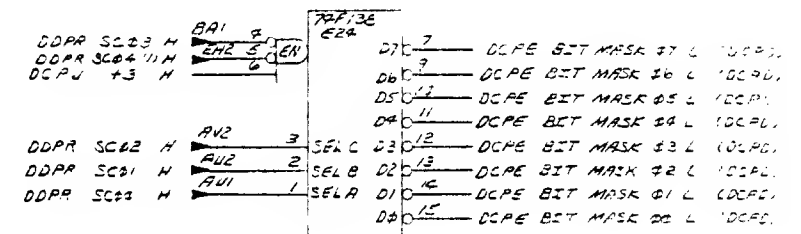


THIS DRAWING AND SPECIFICATIONS, HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION, AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION



AB, RC - 85566A

| LE | WE | CLK | FUNCTION         |
|----|----|-----|------------------|
| H  | H  | X   | NO OPERATION     |
| H  | L  | X   | STORE, RN ← SHF  |
| L  | H  | X   | LATCH, LA ← (RN) |



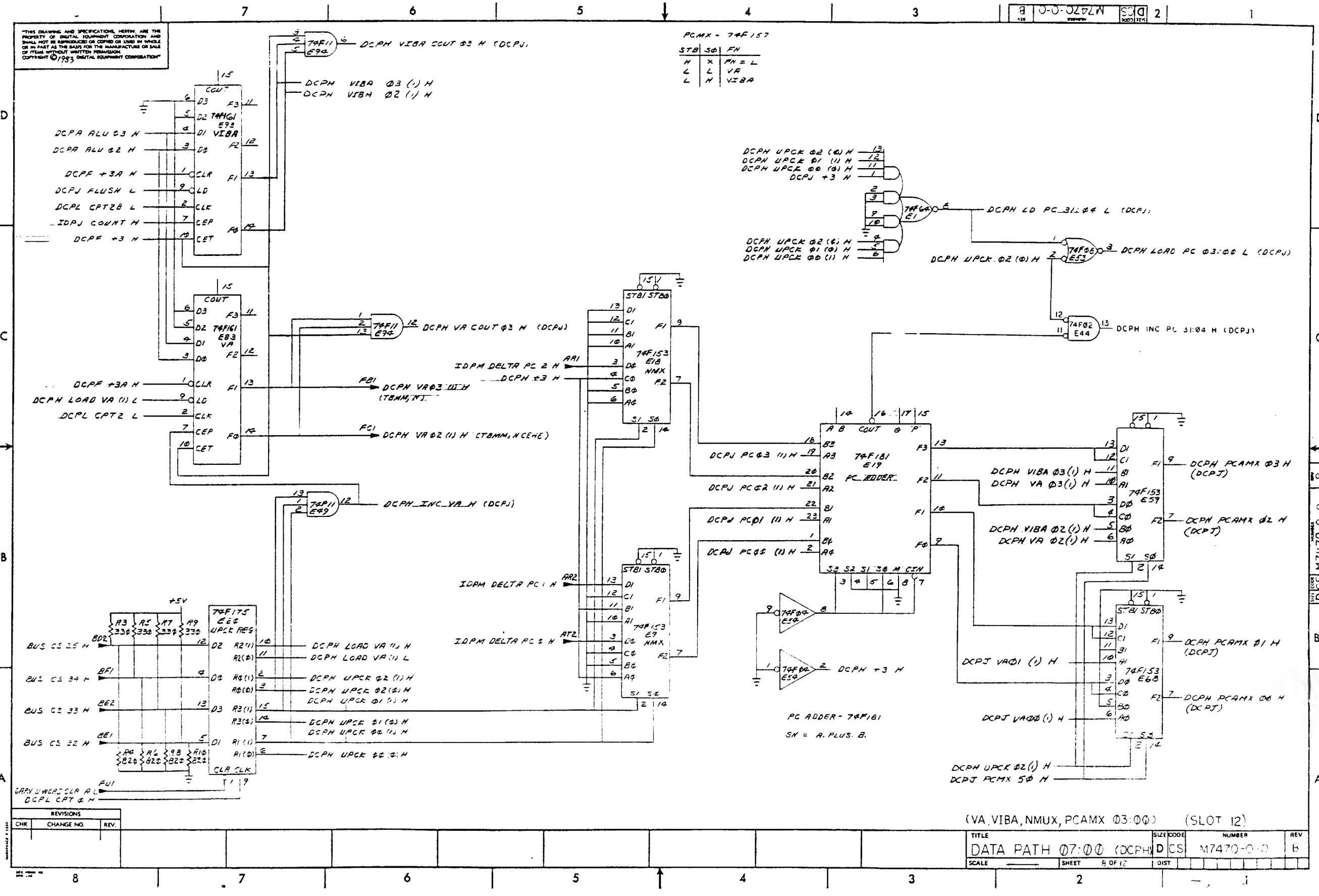
PCSV - 74F194

| CLR | CLK | SI | SP | DSR | FUNCTION       |
|-----|-----|----|----|-----|----------------|
| L   | X   | X  | X  | X   | NO OPERATION   |
| H   | X   | L  | L  | L   | NO OPERATION   |
| H   | X   | H  | H  | H   | STORE, RN ← CS |

| REV | CHG | NO | REV |
|-----|-----|----|-----|
|     |     |    |     |

|  |  |       |           |        |     |
|--|--|-------|-----------|--------|-----|
| (RB, RC, PCSV AND BITMASK 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100) |  | TITLE | SIZE (mm) | NUMBER | REV |
| DATA PATH 07:00  |  | DCPD  | DESIGN    |        |     |
| SCALE  |  | SHEET | OF        |        |     |





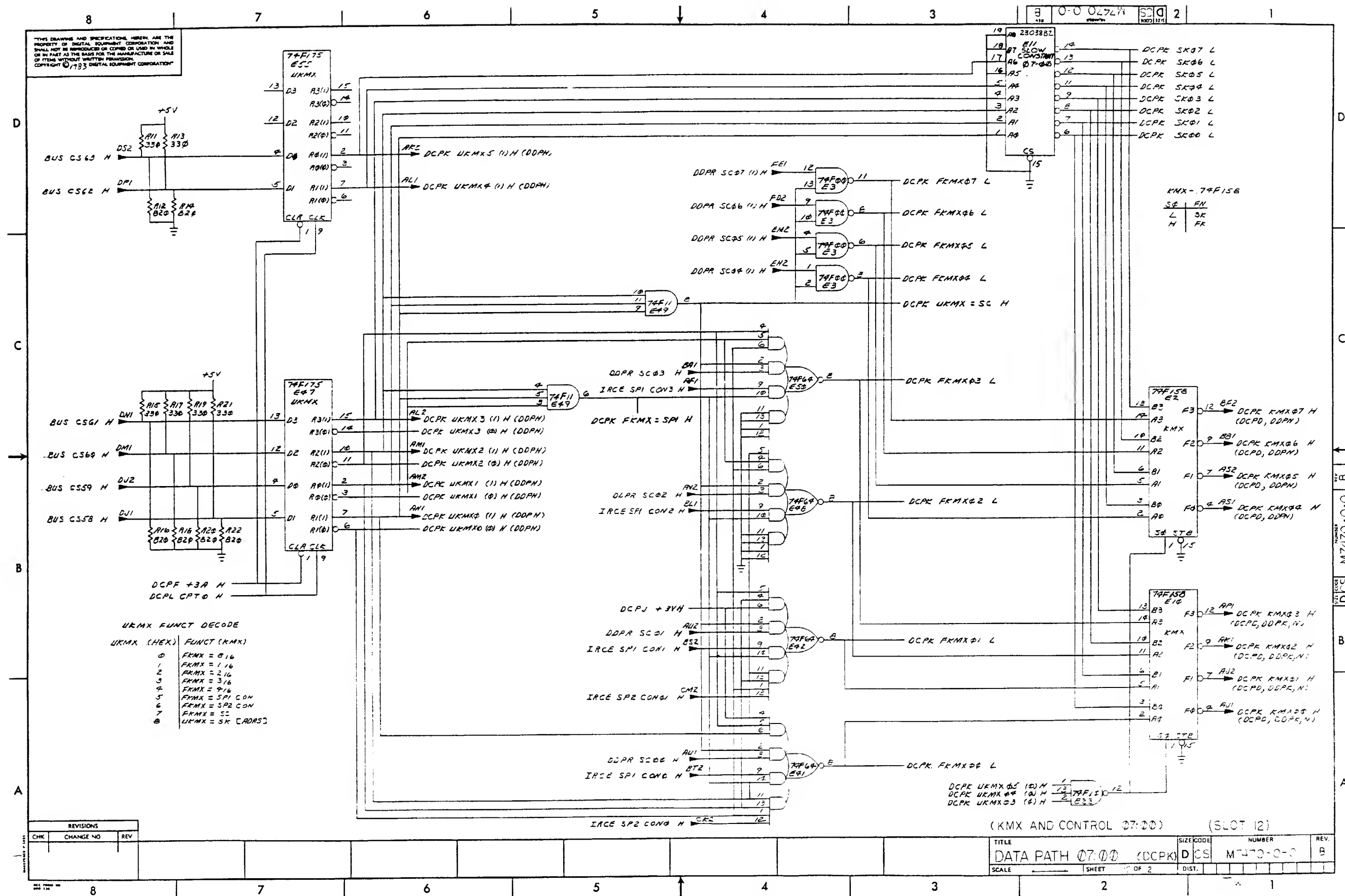
THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION

PCMX - 74F157

| STB | SD | FN     |
|-----|----|--------|
| H   | X  | FN = L |
| L   | L  | VA     |
| L   | H  | VIBA   |

|                        |       |           |           |     |
|------------------------|-------|-----------|-----------|-----|
| TITLE                  |       | SIZE CODE | NUMBER    | REV |
| DATA PATH 07:00 (DCPH) |       | DCS       | M7470-0-0 | B   |
| SCALE                  | SHEET | 8 OF 12   | DIST      |     |



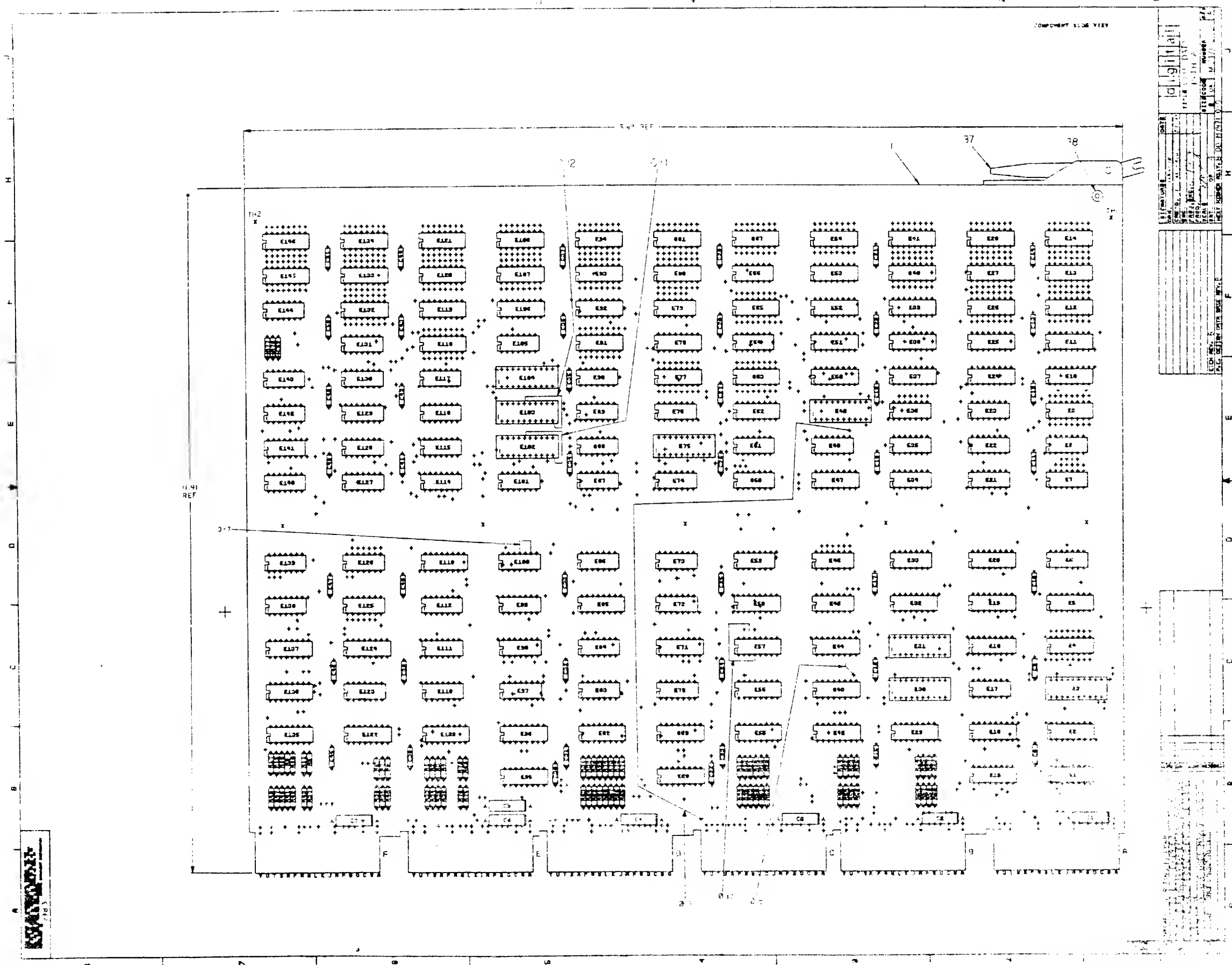


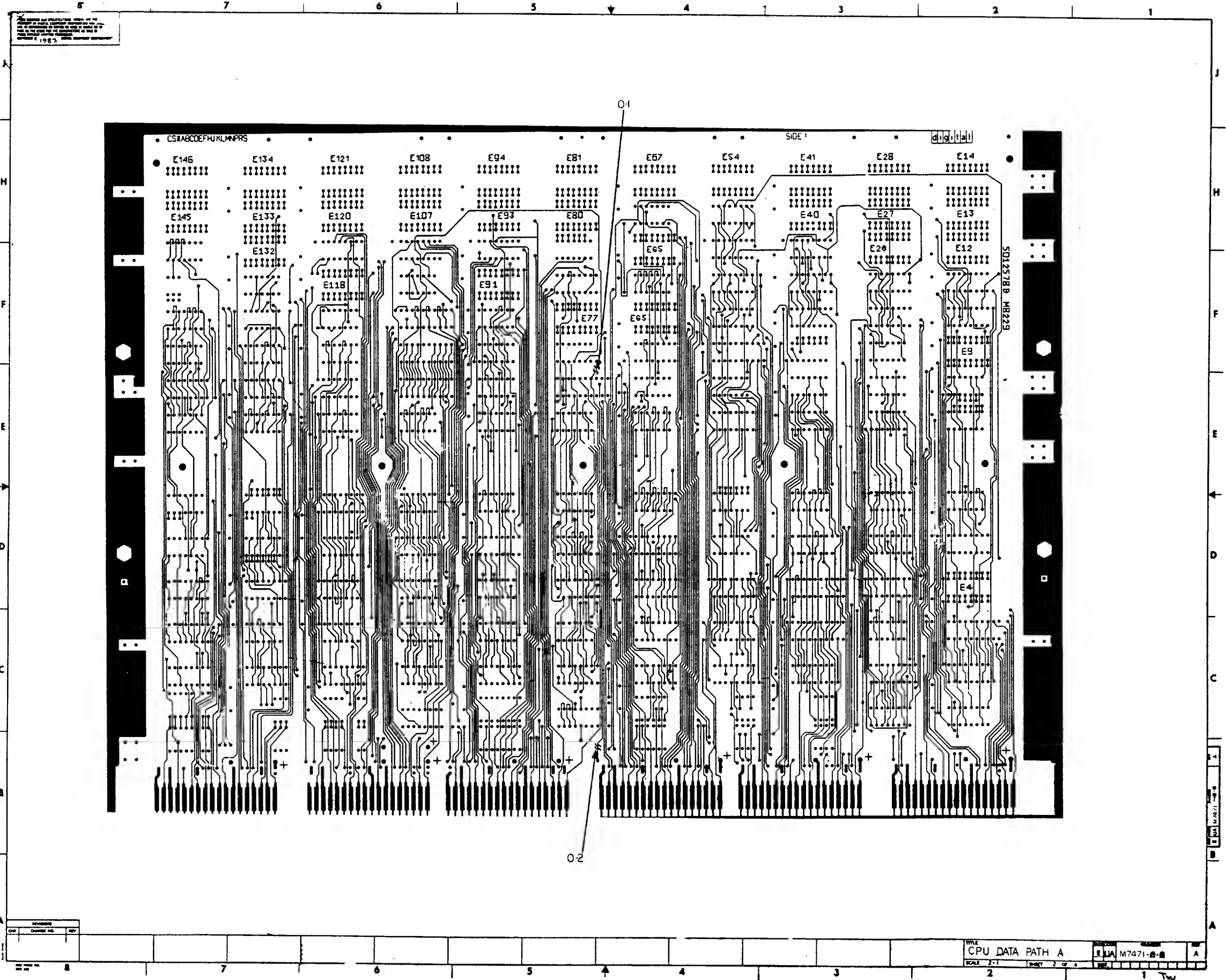






[illegible]

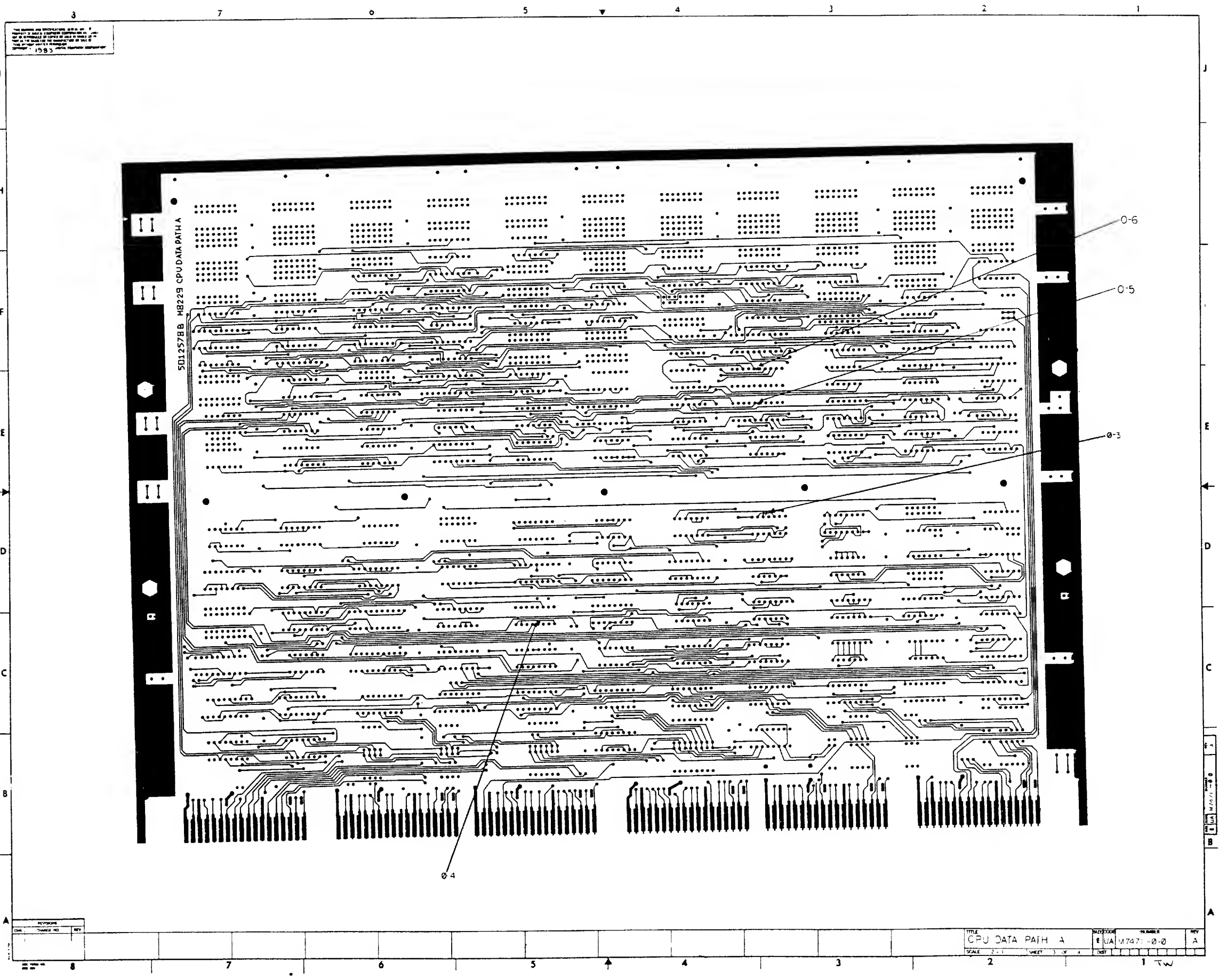


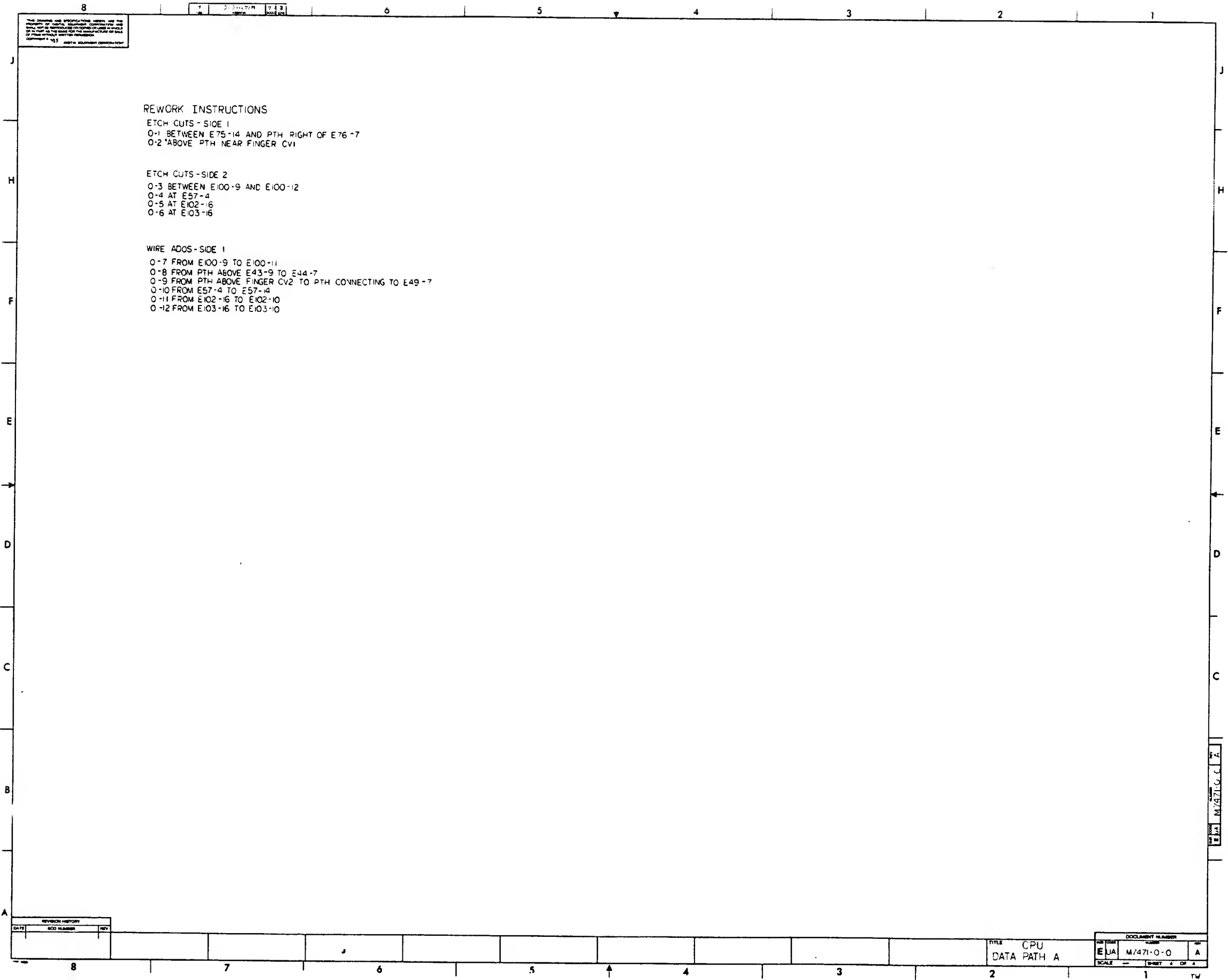


REVISIONS  
1983

| REV | DESCRIPTION |
|-----|-------------|
| 1   | Initial     |

CPU DATA PATH A  
M7471-A-1  
SCALE 2:1  
SHEET 2 OF 4





THIS DRAWING AND SPECIFICATIONS HEREBY ARE THE PROPERTY OF THE U.S. GOVERNMENT. IT IS TO BE REPRODUCED IN WHOLE OR IN PART FOR THE GOVERNMENT OR FOR THE U.S. GOVERNMENT CONTRACTOR.

REWORK INSTRUCTIONS

ETCH CUTS - SIDE 1

- O-1 BETWEEN E75-14 AND PTH RIGHT OF E76-7
- O-2 ABOVE PTH NEAR FINGER CV1

ETCH CUTS - SIDE 2

- O-3 BETWEEN E100-9 AND E100-12
- O-4 AT E57-4
- O-5 AT E102-16
- O-6 AT E103-16

WIRE ADDS - SIDE 1

- O-7 FROM E100-9 TO E100-11
- O-8 FROM PTH ABOVE E43-9 TO E44-7
- O-9 FROM PTH ABOVE FINGER CV2 TO PTH CONNECTING TO E49-7
- O-10 FROM E57-4 TO E57-14
- O-11 FROM E102-16 TO E102-10
- O-12 FROM E103-16 TO E103-10

| REVISION HISTORY |            |     |
|------------------|------------|-----|
| DATE             | ECO NUMBER | REV |
|                  |            |     |

| TITLE           |  | DOCUMENT NUMBER |           |
|-----------------|--|-----------------|-----------|
| CPU DATA PATH A |  | EJA             | M/471-0-0 |
| SCALE           |  | SHEET           | OF 4      |

| LINE                      | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                 | QTY PER VARIATION | REFERENCE DESIGNATOR                |
|---------------------------|------|------------------|-------------|---------|-----------------------------|-------------------|-------------------------------------|
| VARIATION REVISION LEVEL: |      |                  |             |         |                             |                   |                                     |
| 1                         | 1    | D-MD-5016098-0-0 | 5012578-00  |         | M8229                       | 1                 |                                     |
| 2                         | 2    |                  | 1012084-01  | 8       | MFD 25V +75-10% AL EL       | 7                 | C1-C7                               |
| 3                         | 3    |                  | 1012784-00  | .047    | MFD 50V +80-20% CER         | 45                | C8-C52                              |
| 4                         | 4    |                  | 1301424-00  | 680.0   | .25 W 5.0 % CF              | 1                 | R78                                 |
| 5                         | 5    |                  | 1300247-00  | 120.0   | .25 W 5.0 % CF              | 6                 | R71-R76                             |
| 6                         | 6    |                  | 1300250-00  | 150.0   | .25 W 5.0 % CF              | 6                 | R65-R70                             |
| 7                         | 7    |                  | 1300295-00  | 330.0   | .25 W 5.0 % CF              | 33                | R1-R32,R77                          |
| 8                         | 8    |                  | 1301775-00  | 820.0   | .25 W 5.0 % CF              | 32                | R33-R64                             |
| 9                         | 9    |                  | 1921334-01  |         | 74F350 SHIFTER,4-8IT        | 1                 | E136                                |
| 10                        | 10   |                  | 1913839-00  |         | LS165 SHIFT REG.,88IT       | 5                 | E39,E52,E92,E119,E106               |
| 11                        | 11   |                  | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN   | 6                 | E7,E36,E87,E139,E141,E131           |
| 12                        | 12   |                  | 1921307-01  |         | 74F04 HEX INVERTER          | 10                | E6,E23,E45,E59,E60,E66,E88,E140,    |
|                           |      |                  |             |         |                             |                   | CONT E130,E48                       |
| 13                        | 13   |                  | 1921309-01  |         | 74F10 NAND GATE,TRIPLE,3-I  | 3                 | E35,E70,E142                        |
| 14                        | 14   |                  | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN  | 4                 | E8,E72,E89,E126                     |
| 15                        | 15   |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN   | 6                 | E21,E33,E34,E125,E143,E105          |
| 16                        | 16   |                  | 1910541-00  |         | 74S40 BUFFER,POS-NAND,DUAL  | 2                 | E17,E101                            |
| 17                        | 17   |                  | 1921313-01  |         | 74F64 AND OR INVERT GATE,4- | 15                | E83,E84,E86,E97,E98,E99,E100,       |
|                           |      |                  |             |         |                             |                   | CONT E110,E111,E112,E127,E123,E128, |
|                           |      |                  |             |         |                             |                   | CONT E129,E117                      |
| 18                        | 18   |                  | 1921314-01  |         | 74F74 FF-D,DUAL,POS.,EDGE   | 3                 | E61,E64,E144                        |
| 19                        | 19   |                  | 1921320-01  |         | 74F157 MUX,QUAD,2-IN        | 1                 | E137                                |
| 20                        | 20   |                  | 1921321-01  |         | 74F158 MUX,QUAD,2-IN        | 4                 | E1,E2,E18,E62                       |
| 21                        | 21   |                  | 1921327-01  |         | 74F194 SHIFT REG,UNIV,8IDIR | 1                 | E113                                |
| 22                        | 22   |                  | 1921318-01  |         | 74F151 MUX,8-IN             | 13                | E10,E11,E24,E25,E37,E38,E43,E44,    |
|                           |      |                  |             |         |                             |                   | CONT E50,E51,E56,E57,E58            |
| 23                        | 23   |                  | 1921324-01  |         | 74F175 FF-D,QUAD            | 12                | E15,E16,E29,E47,E55,E69,E82,E96,    |
|                           |      |                  |             |         |                             |                   | CONT E109,E122,E135,E42             |
| 24                        | 24   |                  | 1911469-00  | DEC     | 8640 RECEIVER,8US,QUAD,U    | 1                 | E79                                 |
| 25                        | 25   |                  | 1921316-01  |         | 74F138 DECODER/DEMUX,1-OF-8 | 4                 | E5,E71,E85,E124                     |

| REVISION HISTORY |            |     | BASIC PART NO: M7471    |    | DRN: A.RUSZCZYK          |  | DATE: 04-MAR-83      |  | D I G I T A L           |      |             |     |
|------------------|------------|-----|-------------------------|----|--------------------------|--|----------------------|--|-------------------------|------|-------------|-----|
| ENG              | ECO NUMBER | REV | SECTION A OF A          |    | CHK'D: T.MCCULLOUGH      |  | DATE: 04-MAR-83      |  | TITLE PARTS LIST        |      |             |     |
| ---              | INITIAL    | A   | SECTION VARIATION INDEX |    | DES.ENG: KEITH MCLAREN   |  | DATE: 19-SEP-83      |  | CPU DATA PATH A (DAP)   |      |             |     |
|                  |            |     | (A)                     | 00 | RESP.ENG.: KEITH MCLAREN |  | DATE: 19-SEP-83      |  | DOCUMENT NUMBER         |      |             |     |
|                  |            |     | (B)                     |    | MFG.ENG.: M.KRYSAK       |  | DATE: 19-SEP-83      |  | SIZE                    | CODE | NUMBER      | REV |
|                  |            |     | (C)                     |    | ASSEMBLY NUMBER:         |  | TOP DOCUMENT NUMBER: |  | K                       | PL   | M7471-0-DBP | A   |
|                  |            |     | (D)                     |    | E-UA-M7471-0-0           |  | 8-00-M7471-0-0       |  | RELEASE DATE: 14-OCT-83 |      |             |     |
|                  |            |     | (E)                     |    |                          |  |                      |  | FILE NAME:              |      |             |     |
|                  |            |     | (F)                     |    |                          |  |                      |  | 23949A.PLS              |      |             |     |
|                  |            |     | (G)                     |    |                          |  |                      |  | EDIT #                  |      |             |     |
|                  |            |     | (H)                     |    |                          |  |                      |  | 1                       |      |             |     |
|                  |            |     | (I)                     |    |                          |  |                      |  |                         |      |             |     |
|                  |            |     | (J)                     |    |                          |  |                      |  |                         |      |             |     |
|                  |            |     | (K)                     |    |                          |  |                      |  |                         |      |             |     |
|                  |            |     | (L)                     |    |                          |  |                      |  |                         |      |             |     |
|                  |            |     | (M)                     |    |                          |  |                      |  |                         |      |             |     |
|                  |            |     | (N)                     |    |                          |  |                      |  |                         |      |             |     |

THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS.

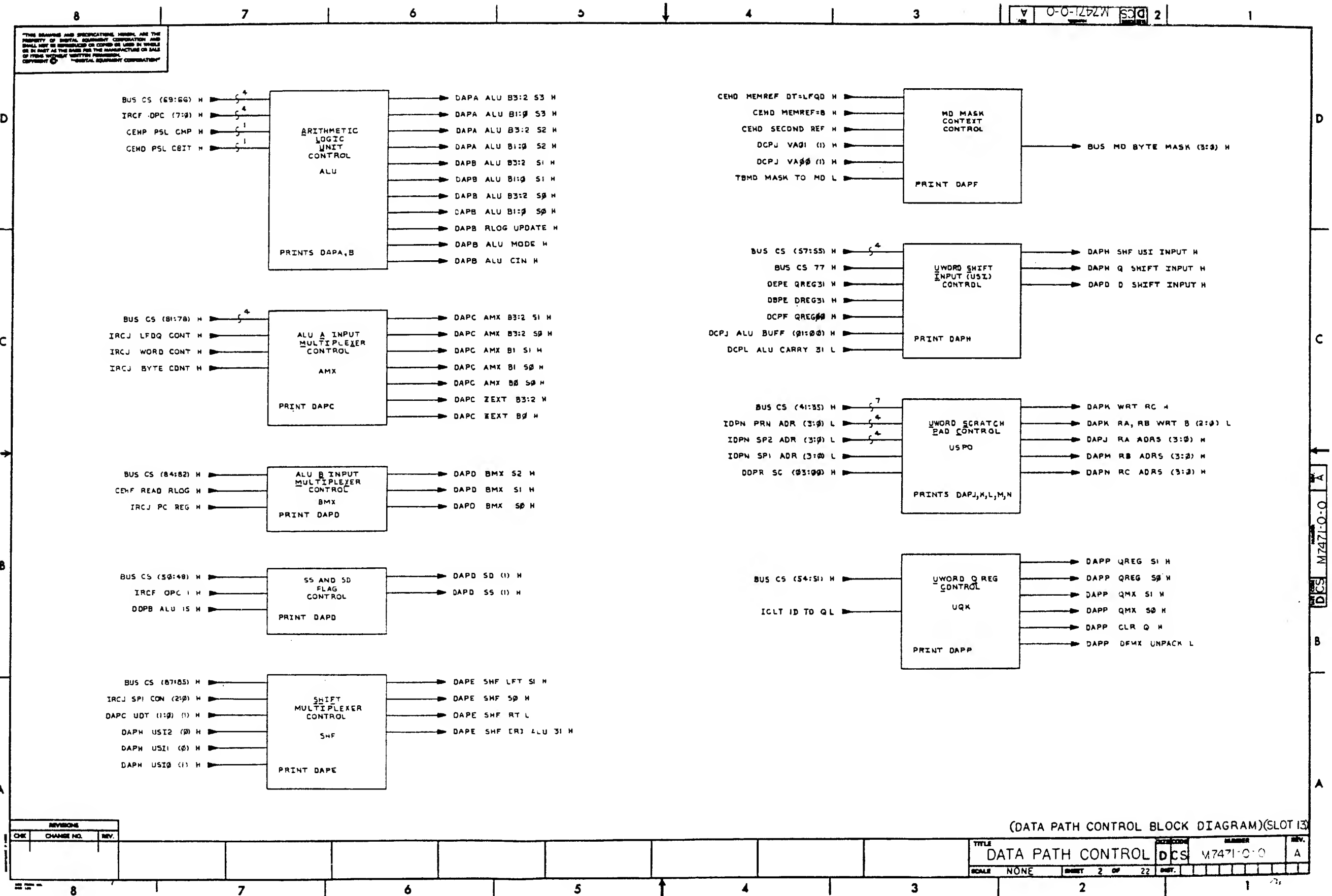
| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                      | QTY PER VARIATION | REFERENCE DESIGNATOR       |
|------|------|--------------|-------------|---------|----------------------------------|-------------------|----------------------------|
|      |      |              |             |         | VARIATION REVISION LEVEL:        | 00                |                            |
| 26   | 26   |              | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL QUA | 2                 | E68,E95                    |
| 27   | 27   |              | 1911712-00  |         | 74S51 AND-OR GATE-INVERT D       | 6                 | E46,E74,E114,E115,E116,E76 |
| 28   | 28   |              | 1911983-00  |         | 74S133 NAND GATE-POSITIVE 1      | 3                 | E19,E20,E32                |
| 29   | 29   |              | 1921315-01  |         | 74F86 EXCLUSIVE OR GATE,QU       | 1                 | E90                        |
| 30   | 30   |              | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN         | 3                 | E22,E73,E138               |
| 31   | 31   |              | 1921333-01  |         | 74F283 8INARY FULL ADDER,4       | 2                 | E78,E53                    |
| 32   | 32   |              | 1921008-01  |         | 74F240 BUFFER/LINE DRIVER,I      | 4                 | E3,E31,E75,E104            |
| 33   | 33   |              | 1921009-01  |         | 74F241 BUFFER/LINE DRIVER,N      | 1                 | E49                        |
| 34   | 34   |              | 1921010-01  |         | 74F373 OCTAL TRANSPARENT LA      | 1                 | E30                        |
| 35   | 35   |              | 2303682-00  | 82-03   |                                  | 1                 | E102                       |
| 36   | 36   |              | 2303582-00  | 82-03   |                                  | 1                 | E103                       |
| 37   | 37   |              | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS   | 1                 |                            |
| 38   | 38   |              | 9000024-01  |         | EYELET,ROLLED 0.1210DX0.192      | 12                |                            |
| 39   | 39   |              | 9105740-55  |         | WIRE(WRAP) 30AWG KYNAR UL14      | A/R               |                            |

40 NOTE: SPARE IC'S E4,E9,E12-E14,E26-E28,E40,E41,E54,E63,E65,E67,  
41 NOTE: SPARE IC'S CONTINUED E80,E81,E77,E91,E93,E94,E107,E108,  
42 NOTE: SPARE IC'S CONTINUED E118,E120,E121,E132-E134,E145,E146

|   |   |   |   |   |   |   |                       |                |      |      |                 |     |
|---|---|---|---|---|---|---|-----------------------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE                 | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   | CPU DATA PATH A (DAP) |                | K    | PL   | M7471-0-DBP     | A   |







THIS DRAWING AND INFORMATION HEREIN ARE THE PROPERTY OF CONTROL SYSTEMS CORPORATION AND SHALL NOT BE REPRODUCED OR USED IN ANY MANNER OR IN ANY MANNER AS THE BASIS FOR THE DESIGN OR CONSTRUCTION OF ANY OTHER SYSTEM WITHOUT THE WRITTEN PERMISSION OF CONTROL SYSTEMS CORPORATION.

AMX CONTROL — TRUTH TABLE

| UAMX |   | UDT |   | CONTEXT |      |      | AMX CONTROL |    |     |        |    |     |        |    |     |        |    |     | AMX OUTPUT FUNCTIONS     |                   |              |        |  |
|------|---|-----|---|---------|------|------|-------------|----|-----|--------|----|-----|--------|----|-----|--------|----|-----|--------------------------|-------------------|--------------|--------|--|
|      |   |     |   |         |      |      | BYTE 3      |    |     | BYTE 2 |    |     | BYTE 1 |    |     | BYTE 0 |    |     | BYTE 3                   | BYTE 2            | BYTE 1       | BYTE 0 |  |
| I    | 0 | I   | 0 | LONG    | WORD | BYTE | S           | S0 | STB | S      | S0 | STB | S      | S0 | STB | S      | S0 | STB |                          |                   |              |        |  |
| L    | L | X   | X | X       | X    | X    | L           | L  | L   | L      | L  | L   | L      | L  | L   | L      | L  | L   | LA (31:00)               |                   |              |        |  |
| L    | H | X   | X | X       | X    | X    | L           | H  | L   | L      | H  | L   | L      | H  | L   | L      | H  | L   | RAMX (31:00)             |                   |              |        |  |
| H    | L | L   | L | X       | X    | X    | L           | H  | L   | L      | H  | L   | L      | H  | L   | L      | H  | L   | [CSXT LONG] RAMX (31:00) |                   |              |        |  |
| H    | L | L   | H | X       | X    | X    | H           | H  | L   | H      | H  | L   | L      | H  | L   | L      | H  | L   | [CSXT WORD] ← RAMX 15    |                   | RAMX (15:00) |        |  |
| H    | L | H   | L | X       | X    | X    | H           | L  | L   | H      | L  | L   | L      | H  | L   | L      | H  | L   | [CSXT BYTE] ← RAMX 7     |                   | RAMX (07:00) |        |  |
| H    | L | H   | H | H       | L    | L    | L           | L  | L   | L      | L  | L   | L      | H  | L   | L      | H  | L   | RAMX (31:00)             |                   |              |        |  |
| H    | L | H   | H | L       | H    | L    | H           | H  | L   | H      | H  | L   | L      | H  | L   | L      | H  | L   | [CSXT WORD] ← RAMX 15    |                   | RAMX (15:00) |        |  |
| H    | L | H   | H | L       | L    | L    | H           | L  | L   | H      | L  | L   | H      | L  | L   | L      | H  | L   | [CSXT BYTE] ← RAMX 7     |                   | RAMX (07:00) |        |  |
| H    | H | L   | L | X       | X    | X    | X           | X  | H   | X      | X  | H   | L      | H  | L   | L      | X  | X   | H                        | [C0XT LONG] L ← L |              |        |  |
| H    | H | L   | H | X       | X    | X    | X           | X  | H   | X      | X  | H   | L      | H  | L   | L      | H  | L   | [C0XT WORD] L ← L        |                   | RAMX (15:00) |        |  |
| H    | H | H   | L | X       | X    | X    | X           | X  | H   | X      | X  | H   | L      | L  | L   | L      | H  | L   | [C0XT BYTE] L ← L        |                   | RAMX (07:00) |        |  |
| H    | H | H   | H | H       | L    | L    | L           | X  | X   | H      | X  | X   | H      | L  | L   | X      | X  | H   | [C0XT LONG] L ← L        |                   |              |        |  |
| H    | H | H   | H | L       | H    | L    | L           | X  | X   | H      | X  | X   | H      | L  | L   | L      | H  | L   | [C0XT WORD] L ← L        |                   | RAMX (15:00) |        |  |
| H    | H | H   | H | L       | L    | H    | X           | X  | H   | X      | X  | H   | L      | L  | L   | L      | H  | L   | [C0XT BYTE] L ← L        |                   | RAMX (07:00) |        |  |

NOTE: X=DON'T CARE  
SXT=SIGN EXTEND  
0XT=ZERO EXTEND

ALU FUNCTION SELECT — TRUTH TABLE

| UALU (03:00) |   |   |   |   | FUNCTION SELECT LINES |    |    |    | MODE CONTROL       |  | CARRY INPUT |  | ALU FUNCTION          |
|--------------|---|---|---|---|-----------------------|----|----|----|--------------------|--|-------------|--|-----------------------|
| HEX          | 3 | 2 | 1 | 0 | S3                    | S2 | S1 | S0 | H=LOGIC<br>L=ARITH |  | CARRY=L     |  |                       |
| 0            | L | L | L | L | L                     | H  | H  | L  | L                  |  | L           |  | A. MINUS. B           |
| 1            | L | L | L | H | L                     | H  | H  | L  | L                  |  | L           |  | A. MINUS. B CR LOG    |
| 2            | L | L | H | L | L                     | H  | H  | L  | L                  |  | H           |  | A. MINUS. B. MINUS. I |
| 3            | L | L | H | H | *                     | *  | *  | *  | *                  |  | *           |  | INSTRUCTION DEP.      |
| 4            | L | H | L | L | H                     | L  | L  | H  | L                  |  | L           |  | A. PLUS. B. PLUS. I   |
| 5            | L | H | L | H | H                     | L  | L  | H  | L                  |  | L           |  | A. PLUS. B            |
| 6            | L | H | H | L | H                     | L  | L  | H  | L                  |  | H           |  | A. PLUS. B CR LOG     |
| 7            | L | H | H | H | H                     | H  | L  | H  | H                  |  | X           |  | A. OR. NOT. B         |
| 8            | H | L | L | L | L                     | H  | H  | L  | H                  |  | X           |  | A. XOR. B             |
| 9            | H | L | L | H | L                     | H  | H  | H  | H                  |  | X           |  | A. AND. NOT. B        |
| A            | H | L | H | L | L                     | L  | L  | L  | H                  |  | X           |  | . NOT. A              |
| B            | H | L | H | H | H                     | L  | L  | H  | L                  |  | PSL. C      |  | A. PLUS. B. PLUS. C   |
| C            | H | H | L | L | H                     | H  | H  | L  | H                  |  | X           |  | A. OR. B              |
| D            | H | H | L | H | H                     | L  | H  | H  | H                  |  | X           |  | A. AND. B             |
| E            | H | H | H | L | H                     | L  | H  | L  | H                  |  | X           |  | B                     |
| F            | H | H | H | H | H                     | H  | H  | H  | H                  |  | X           |  | A                     |

NOTE: X=DON'T CARE  
\*=INSTRUCTION DEPENDENT

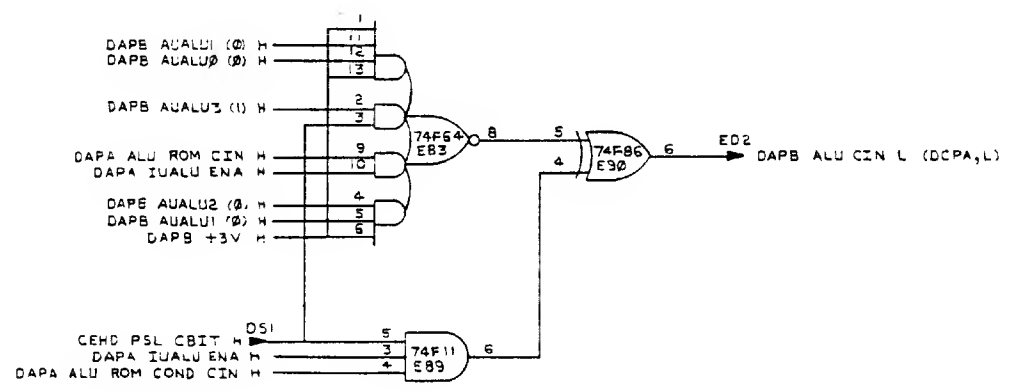
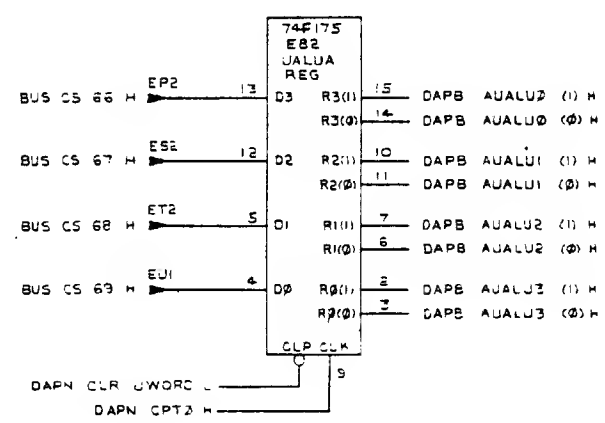
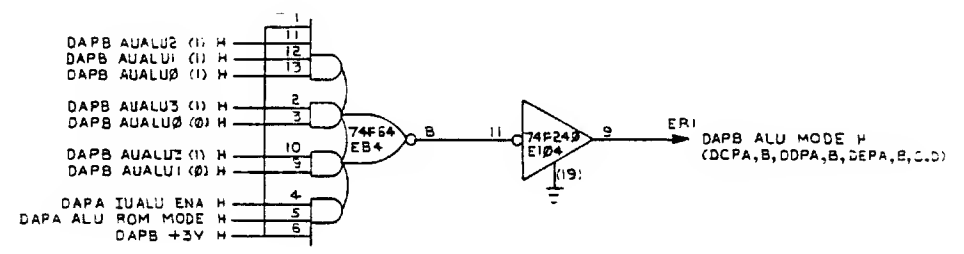
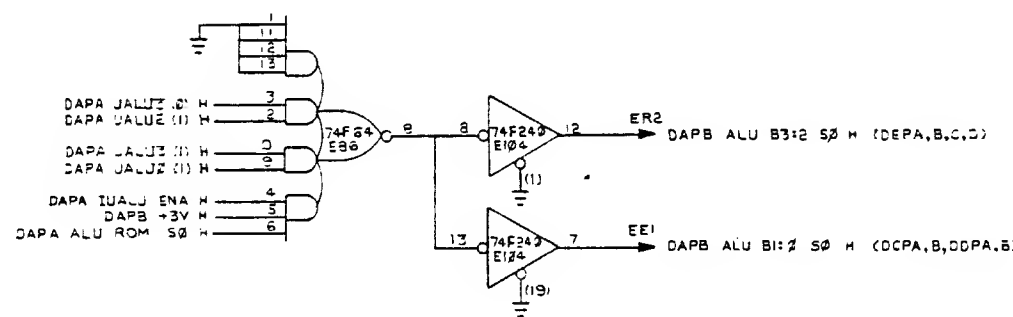
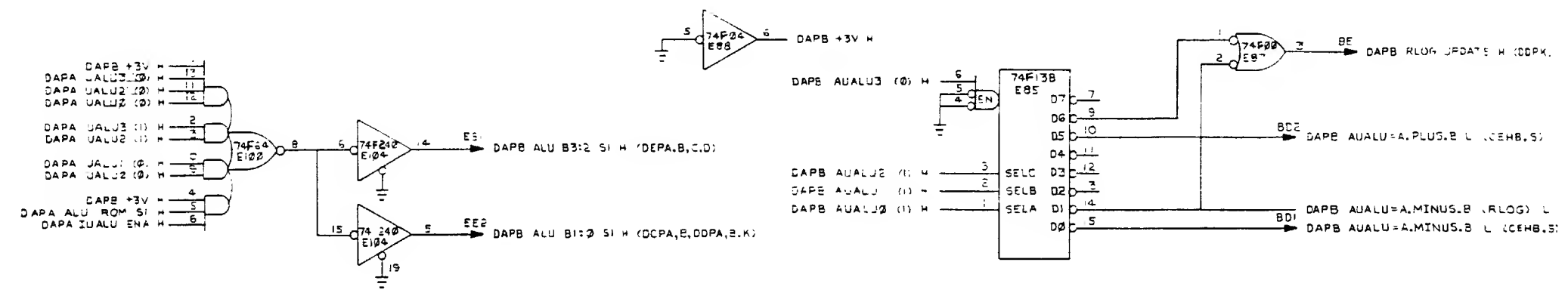
| REVISE |            |      |
|--------|------------|------|
| CHK    | CHANGE NO. | REV. |

(ALU AND AMX CONTROL TRUTH TABLES) (SLOT 13)

| TITLE             |  | NUMBER        | REV.      |
|-------------------|--|---------------|-----------|
| DATA PATH CONTROL |  | D CS          | 17471-0-0 |
| SCALE NONE        |  | SHEET 3 OF 22 | CHG.      |

| (ALU UNCRD AND INSTR DEP CONTROL) (SLOT 13) |      |        |   |      |      |           |  |  |      |
|---|------|--------|---|------|------|-----------|--|--|------|
| TITLE                                       |      | (DAPA) |   | SIZE | CODE | NUMBER    |  |  | REV. |
| DATA PATH CONTROL                           |      |        |   | D    | CS   | M7-71-C-0 |  |  | A    |
| SCALE                                       | NONE | SHEET  | 4 | OF   | 22   | DIST      |  |  |      |

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © DIGITAL EQUIPMENT CORPORATION

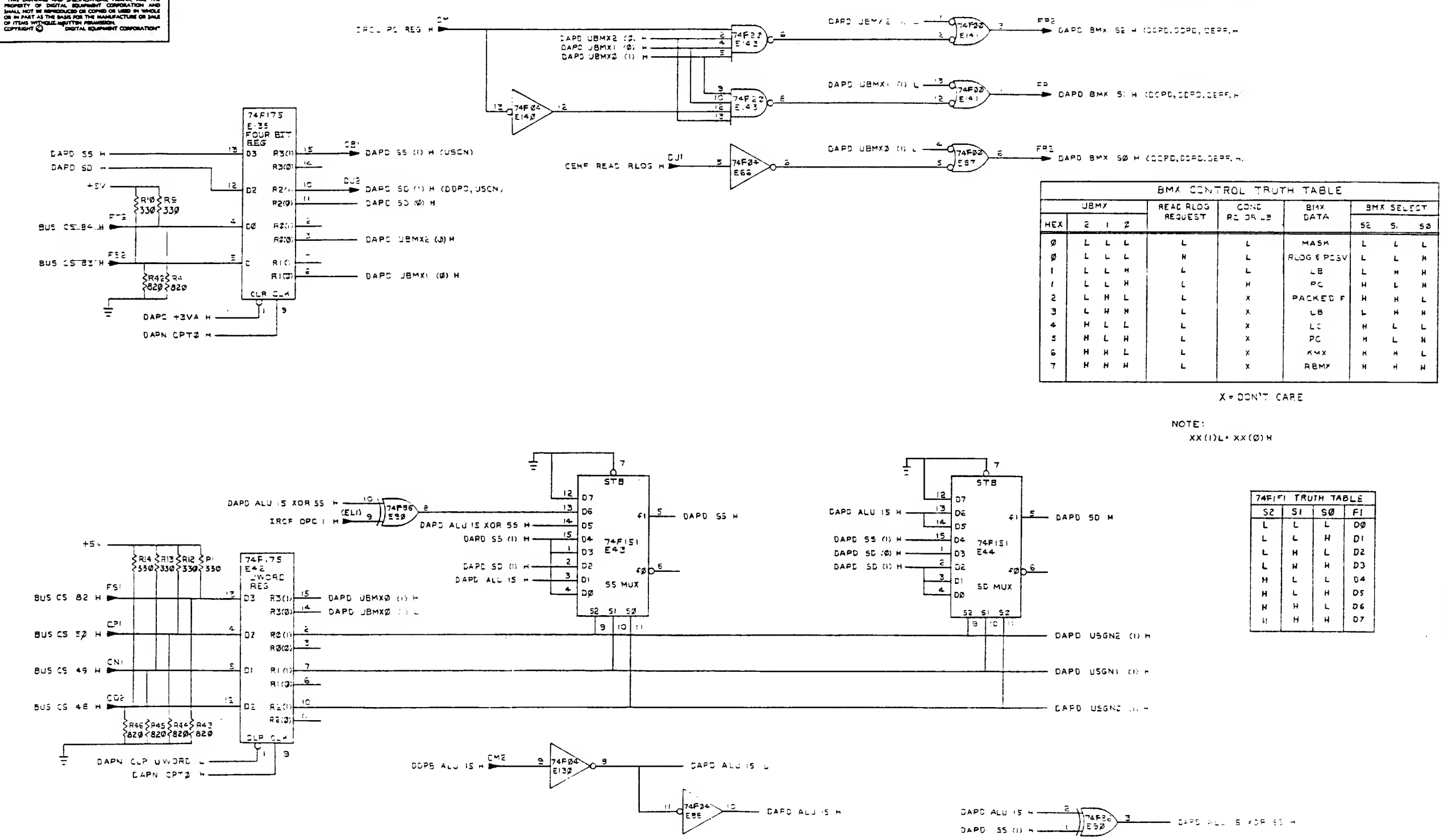


| REVISIONS |           |     |
|-----------|-----------|-----|
| CHK       | CHANGE NO | REV |
|           |           |     |

|                   |  |               |  |           |  |           |  |  |  |  |  |     |  |  |  |
|-------------------|--|---------------|--|-----------|--|-----------|--|--|--|--|--|-----|--|--|--|
| (ALU CONTROL)     |  |               |  | (SLOT 13) |  |           |  |  |  |  |  |     |  |  |  |
| TITLE             |  | (DAPB)        |  | SIZE CODE |  | NUMBER    |  |  |  |  |  | REV |  |  |  |
| DATA PATH CONTROL |  |               |  | D ICS     |  | M7471-0-0 |  |  |  |  |  | A   |  |  |  |
| SCALE NONE        |  | SHEET 5 OF 22 |  | DIST      |  |           |  |  |  |  |  |     |  |  |  |



THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. DIGITAL EQUIPMENT CORPORATION



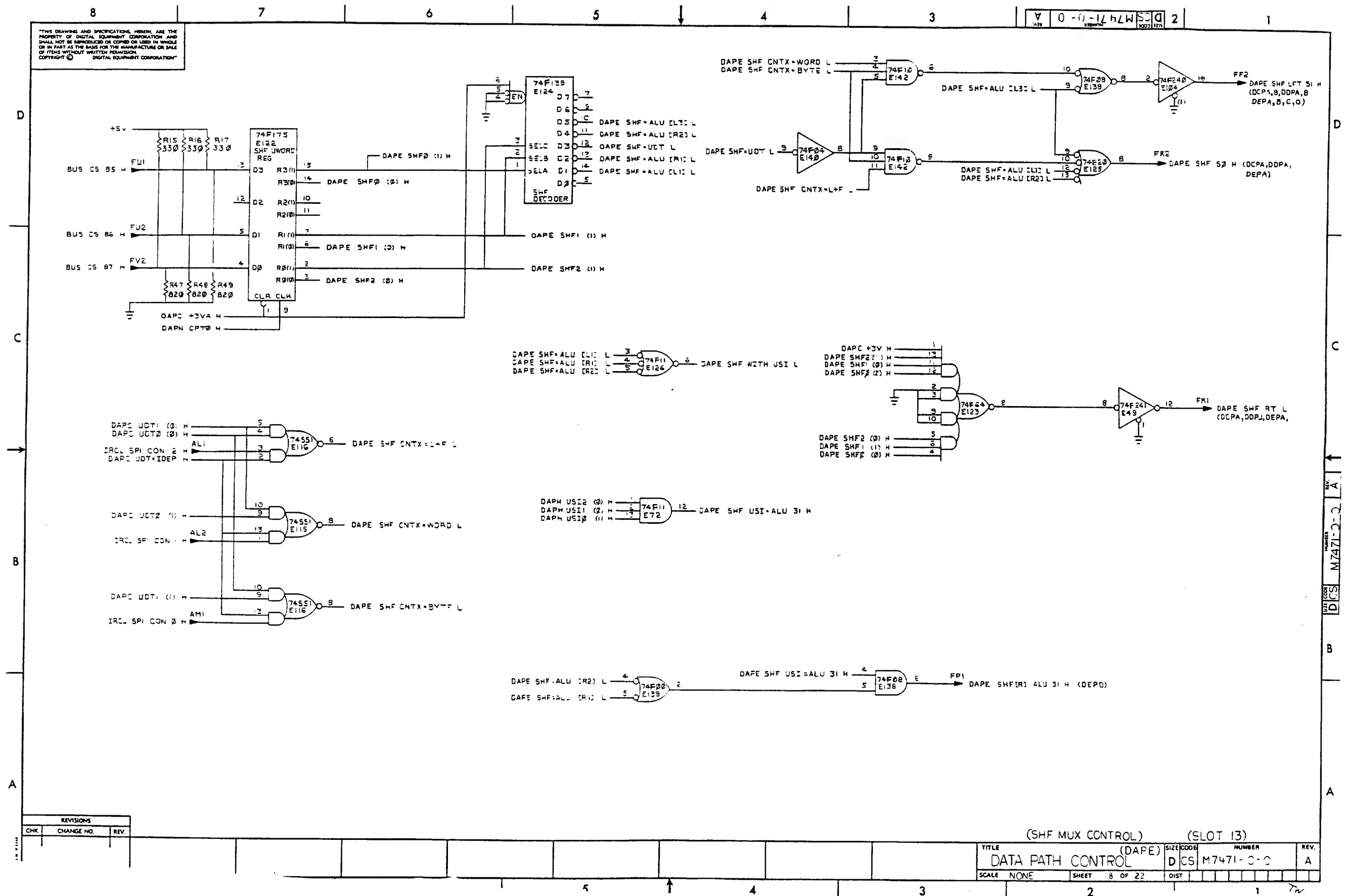
| BMX CONTROL TRUTH TABLE |   |   |   |                   |               |             |            |    |    |
|-------------------------|---|---|---|-------------------|---------------|-------------|------------|----|----|
| UBMX                    |   |   |   | READ RLOG REQUEST | COND RC OR LE | BMX DATA    | BMX SELECT |    |    |
| HEX                     | 2 | 1 | 0 |                   |               |             | S2         | S1 | S0 |
| 0                       | L | L | L | L                 | L             | MASK        | L          | L  | L  |
| 1                       | L | L | L | H                 | L             | RLOG & PC3V | L          | L  | H  |
| 2                       | L | L | H | L                 | H             | LB          | L          | H  | H  |
| 3                       | L | L | H | L                 | H             | PC          | H          | L  | H  |
| 4                       | L | H | L | L                 | X             | PACKED F    | H          | H  | L  |
| 5                       | L | H | H | L                 | X             | LB          | L          | H  | H  |
| 6                       | H | L | L | L                 | X             | LC          | H          | L  | L  |
| 7                       | H | L | H | L                 | X             | PC          | H          | L  | H  |
| 8                       | H | H | L | L                 | X             | KMX         | H          | H  | L  |
| 9                       | H | H | H | L                 | X             | RBMX        | H          | H  | H  |

X = DON'T CARE

NOTE:  
XX (1) L = XX (0) H

| 74F175 TRUTH TABLE |    |    |    |
|--------------------|----|----|----|
| S2                 | S1 | S0 | F1 |
| L                  | L  | L  | D0 |
| L                  | L  | H  | D1 |
| L                  | H  | L  | D2 |
| L                  | H  | H  | D3 |
| H                  | L  | L  | D4 |
| H                  | L  | H  | D5 |
| H                  | H  | L  | D6 |
| H                  | H  | H  | D7 |

| REVISIONS |           |      |
|-----------|-----------|------|
| CHK       | CHANGE NO | REV. |
|           |           |      |



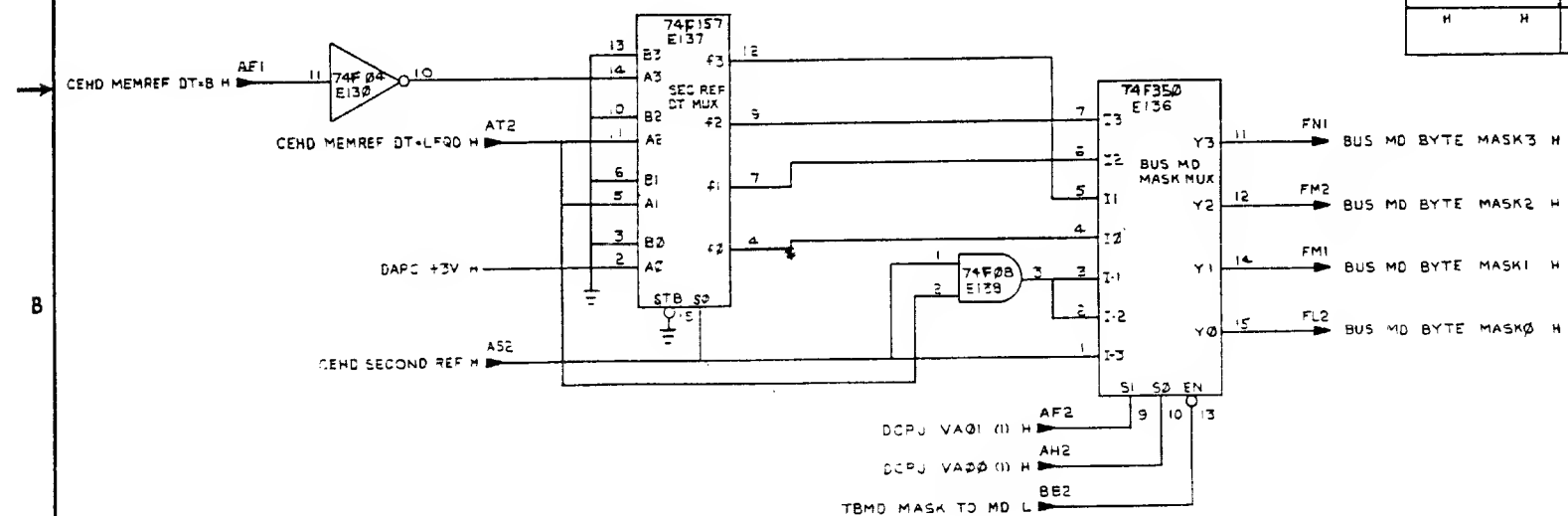


"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © DIGITAL EQUIPMENT CORPORATION

| STB | S0 | FN    |
|-----|----|-------|
| H   | -  | FN=0  |
| L   | L  | FN=AN |
| L   | H  | FN=BN |

| EN | S1 | S0 | Y3             | Y2             | Y1             | Y0             |
|----|----|----|----------------|----------------|----------------|----------------|
| H  | -  | -  | Z              | Z              | Z              | Z              |
| L  | L  | L  | I <sub>3</sub> | I <sub>2</sub> | I <sub>1</sub> | I <sub>0</sub> |
| L  | L  | H  | I <sub>3</sub> | I <sub>1</sub> | I <sub>0</sub> | I <sub>2</sub> |
| L  | H  | L  | I <sub>1</sub> | I <sub>0</sub> | I <sub>2</sub> | I <sub>3</sub> |
| L  | H  | H  | I <sub>0</sub> | I <sub>1</sub> | I <sub>2</sub> | I <sub>3</sub> |

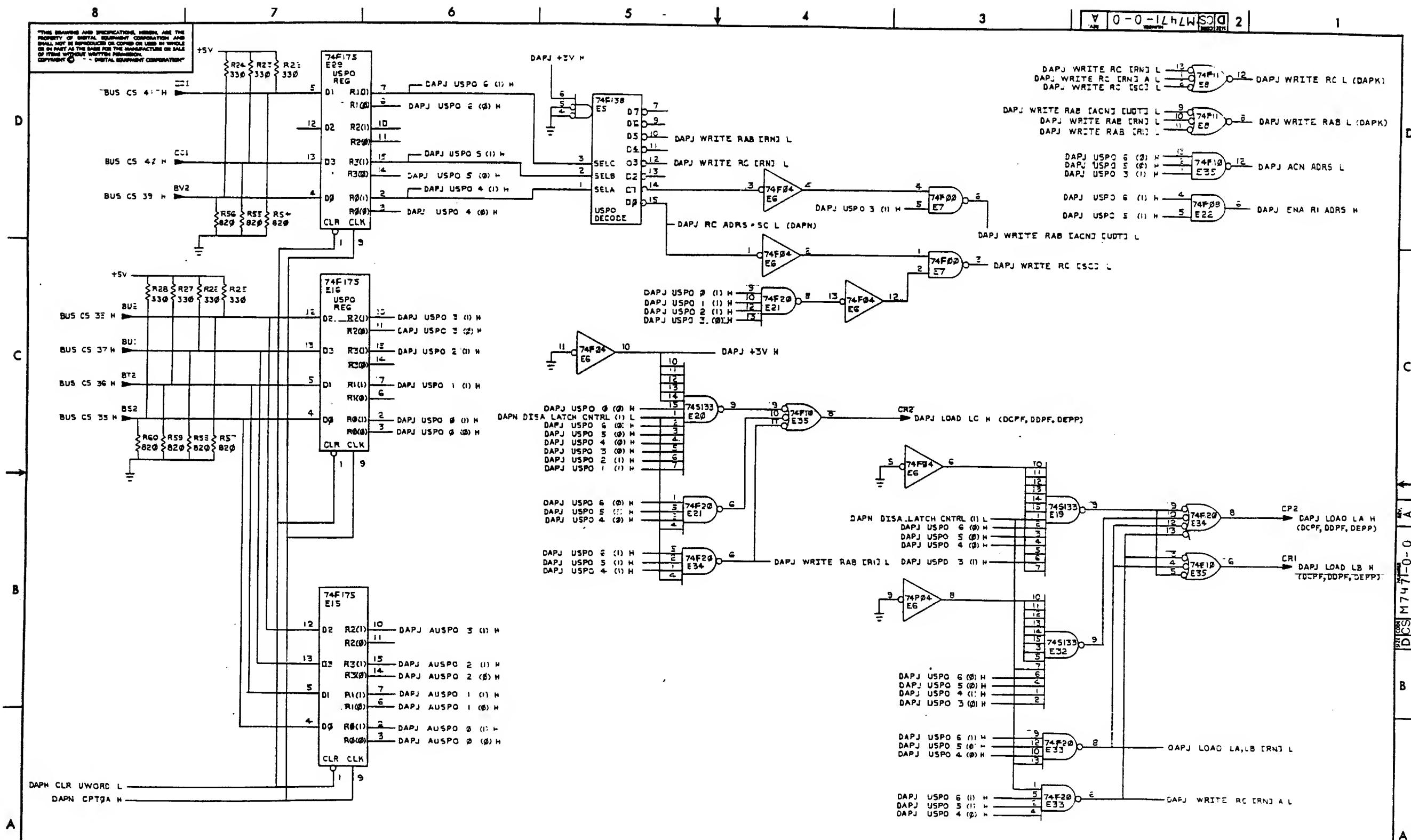
| BYTE ADRS. |      | DATA TYPE |             |                            | SEC. REF.<br>REQUIRED | BUS MD BYTE MASK |   |   |   |
|------------|------|-----------|-------------|----------------------------|-----------------------|------------------|---|---|---|
| VAQ1       | VAQ2 | BYTE (B)  | LONG (LQDF) | WORD<br>(.NOT.B*.NOT.LQDF) |                       | 3                | 2 | 1 | 0 |
| L          | L    | H         | L           | L                          | L                     | L                | L | L | H |
| L          | H    | H         | L           | L                          | L                     | L                | L | L | H |
| H          | L    | H         | L           | L                          | L                     | L                | H | L | L |
| H          | H    | H         | L           | L                          | L                     | H                | L | L | L |
| L          | L    | L         | L           | H                          | L                     | L                | L | L | H |
| L          | H    | L         | L           | H                          | L                     | L                | H | H | L |
| H          | L    | L         | L           | H                          | L                     | H                | H | L | L |
| H          | H    | L         | L           | H                          | L                     | H                | L | L | L |
|            |      |           |             |                            | H                     | L                | L | L | H |
| L          | L    | L         | H           | L                          | L                     | H                | H | H | H |
| L          | H    | L         | H           | L                          | L                     | H                | H | H | L |
|            |      |           |             |                            | H                     | L                | L | L | H |
| H          | L    | L         | H           | L                          | L                     | H                | H | L | L |
|            |      |           |             |                            | H                     | L                | L | H | H |
| H          | H    | L         | H           | L                          | L                     | H                | L | L | L |
|            |      |           |             |                            | H                     | L                | H | H | H |



| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |

| TITLE             |      | (DAF) |         | SIZE | CODE | NUMBER  | REV |
|-------------------|------|-------|---------|------|------|---------|-----|
| DATA PATH CONTROL |      |       |         | D    | CS   | M247100 | A   |
| SCALE             | NONE | SHEET | 9 OF 22 | DIST |      |         |     |



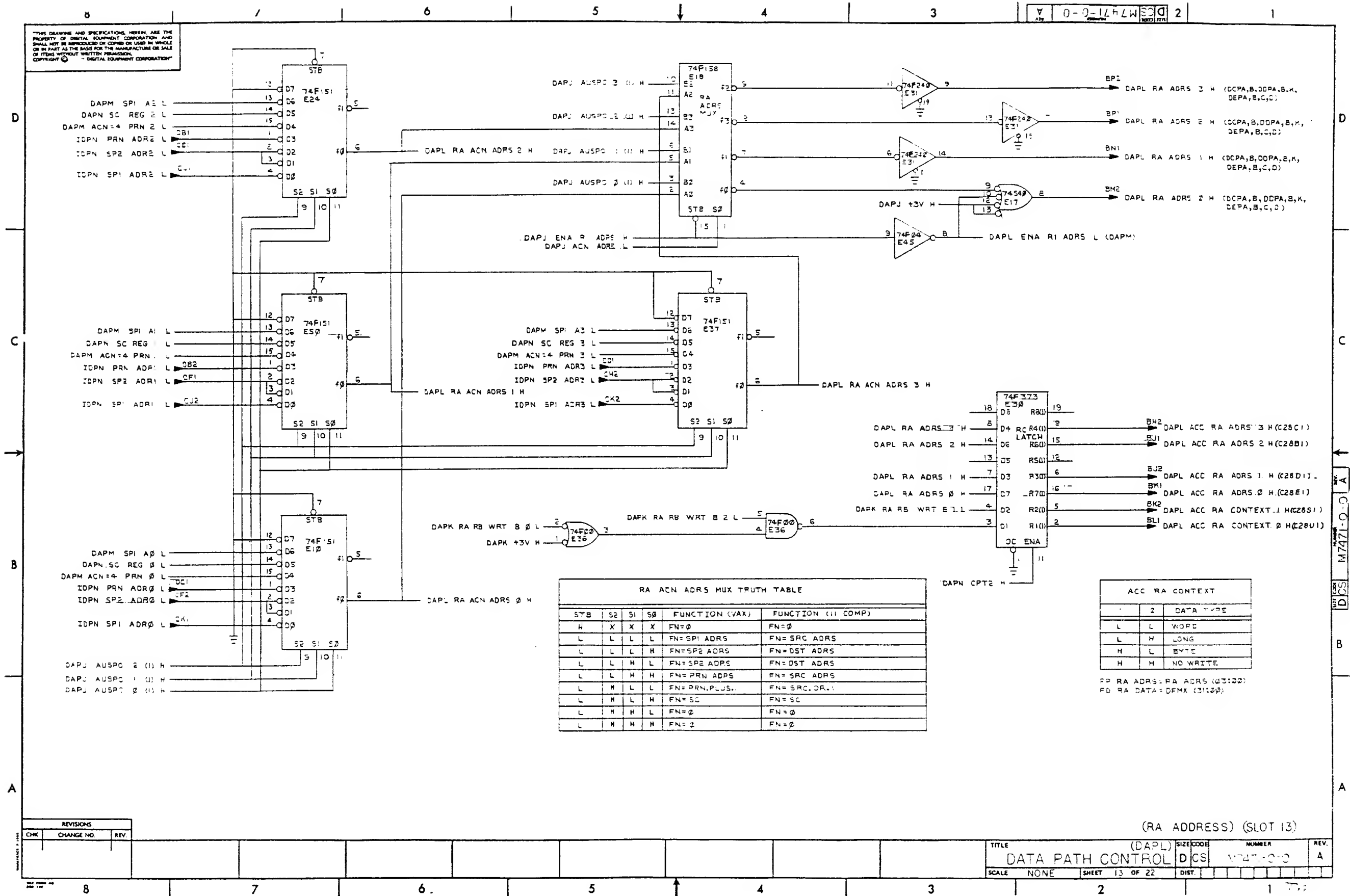


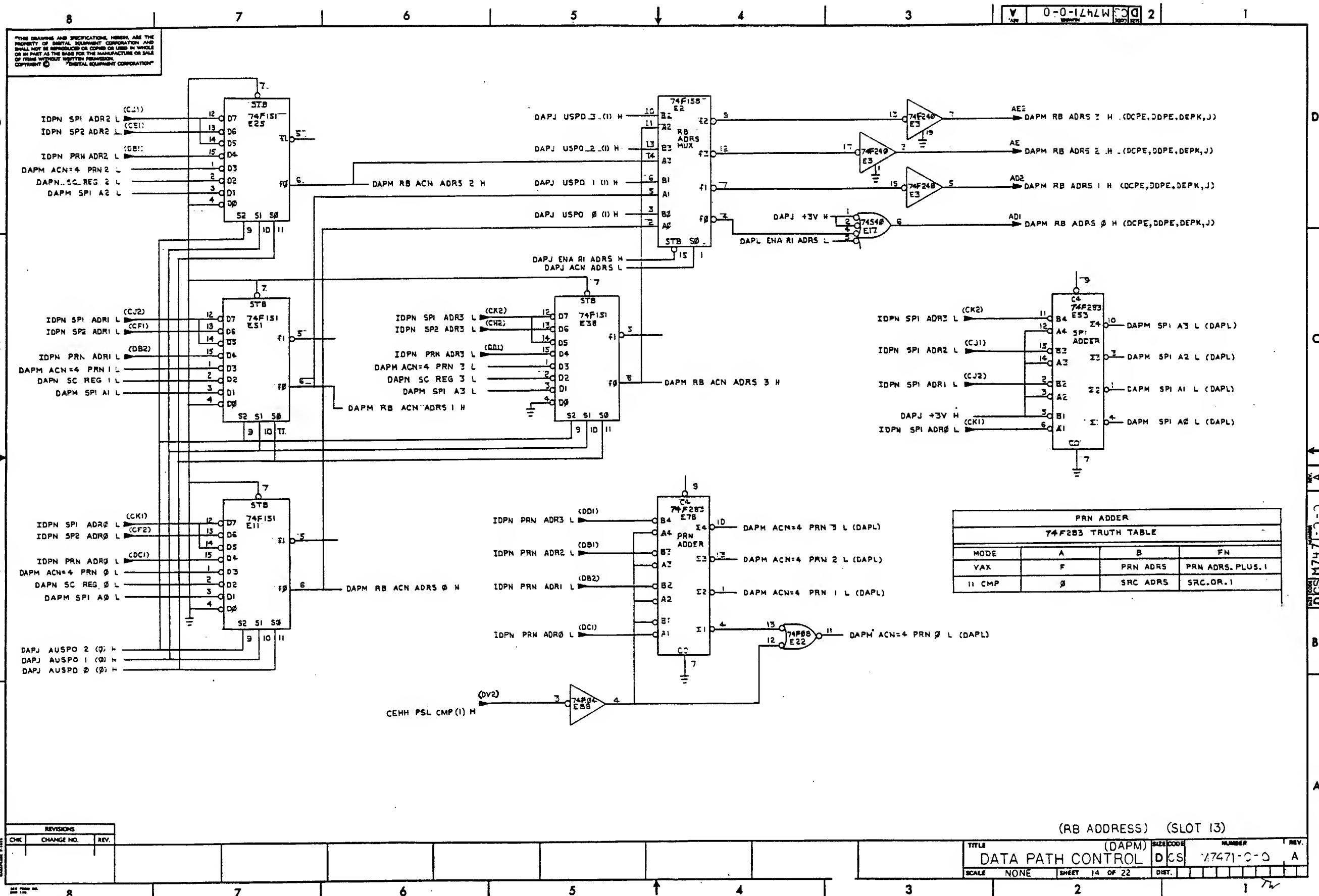
| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |
|           |            |      |
|           |            |      |

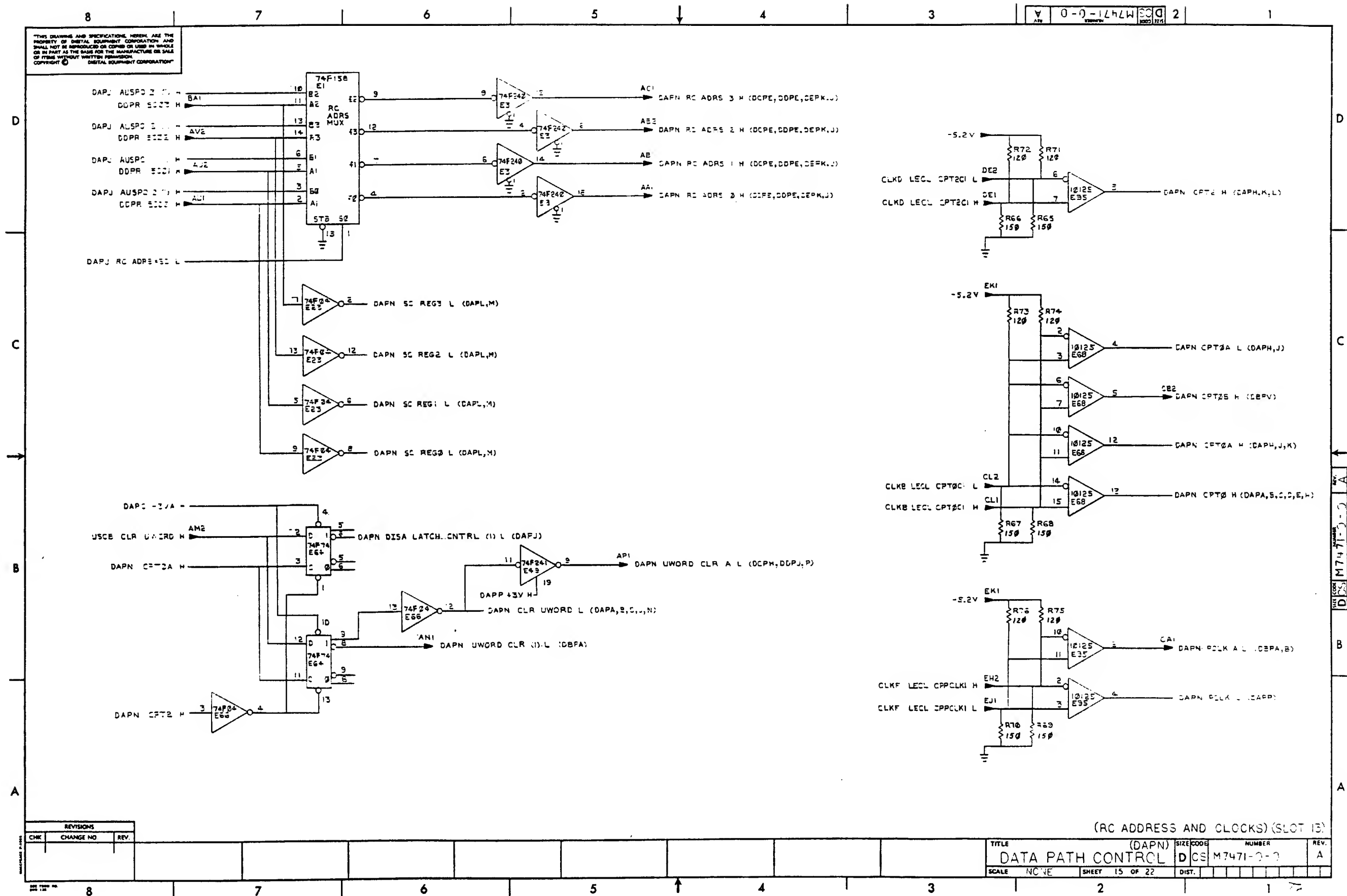
| TITLE                    |      | SIZE CODE | NUMBER    | REV.  |
|--------------------------|------|-----------|-----------|-------|
| DATA PATH CONTROL (DAPJ) |      | DCS       | M7471-C-0 | A     |
| SCALE                    | NONE | SHEET     | 11 OF 22  | DIST. |

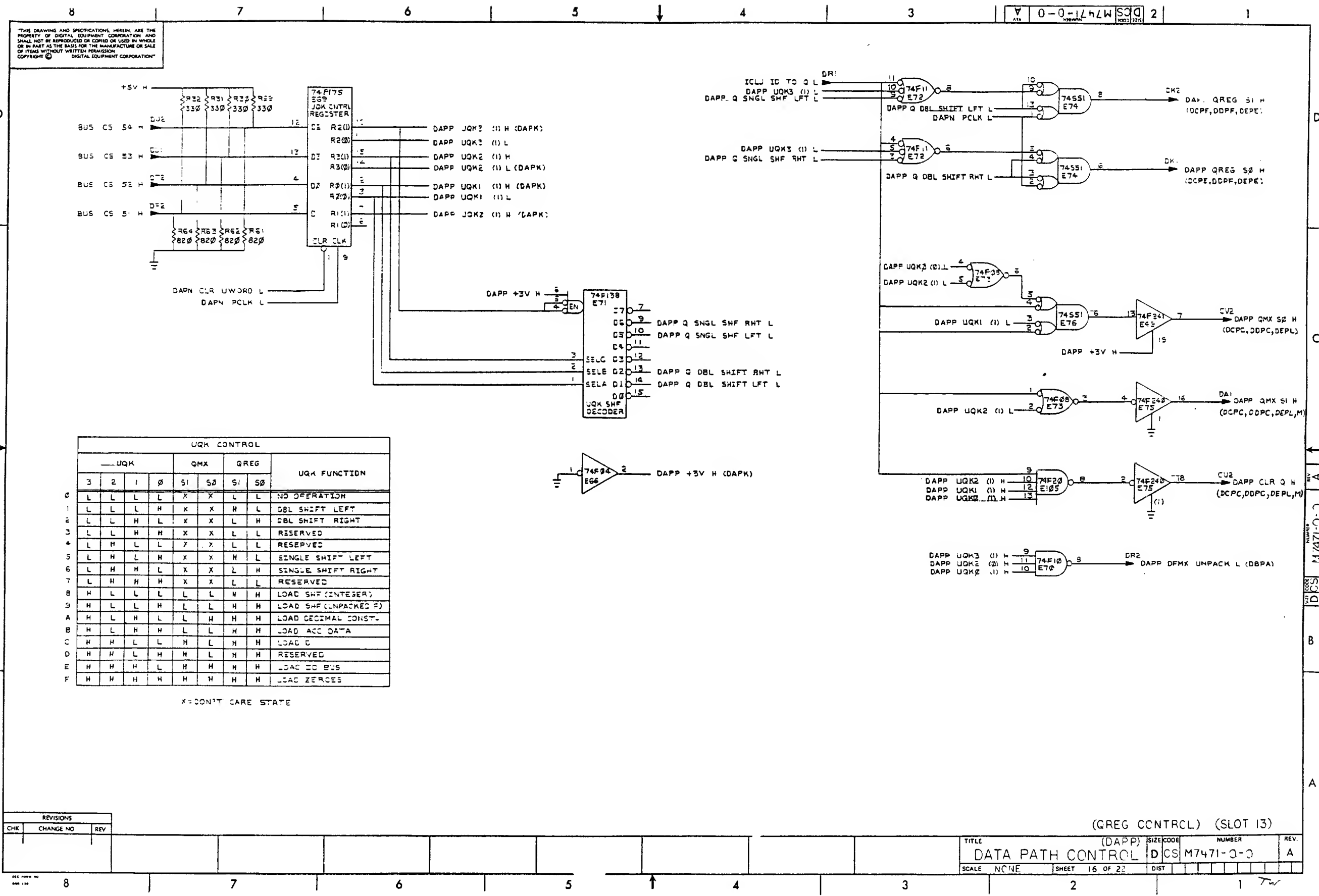


THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1974 DIGITAL EQUIPMENT CORPORATION

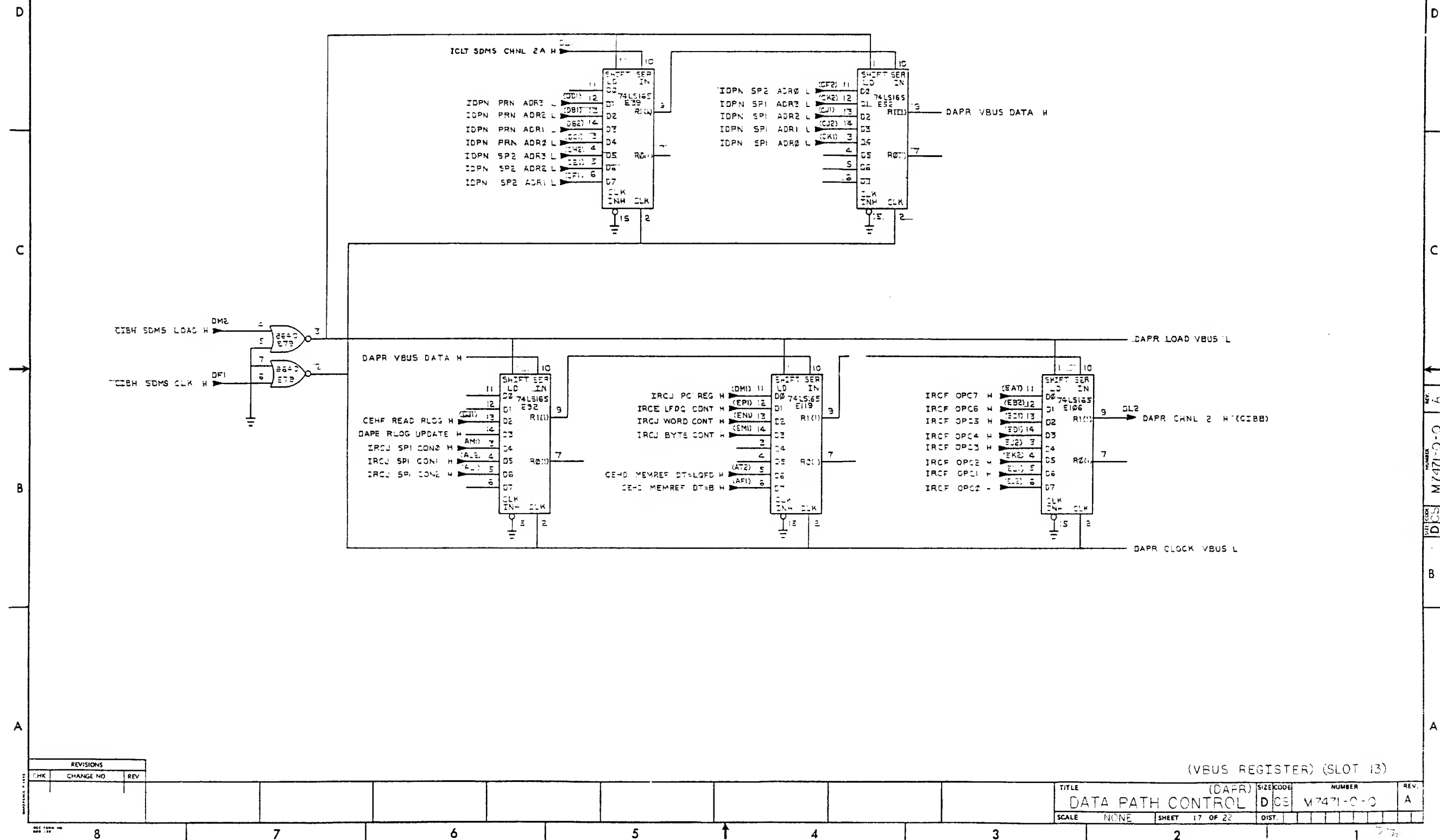
















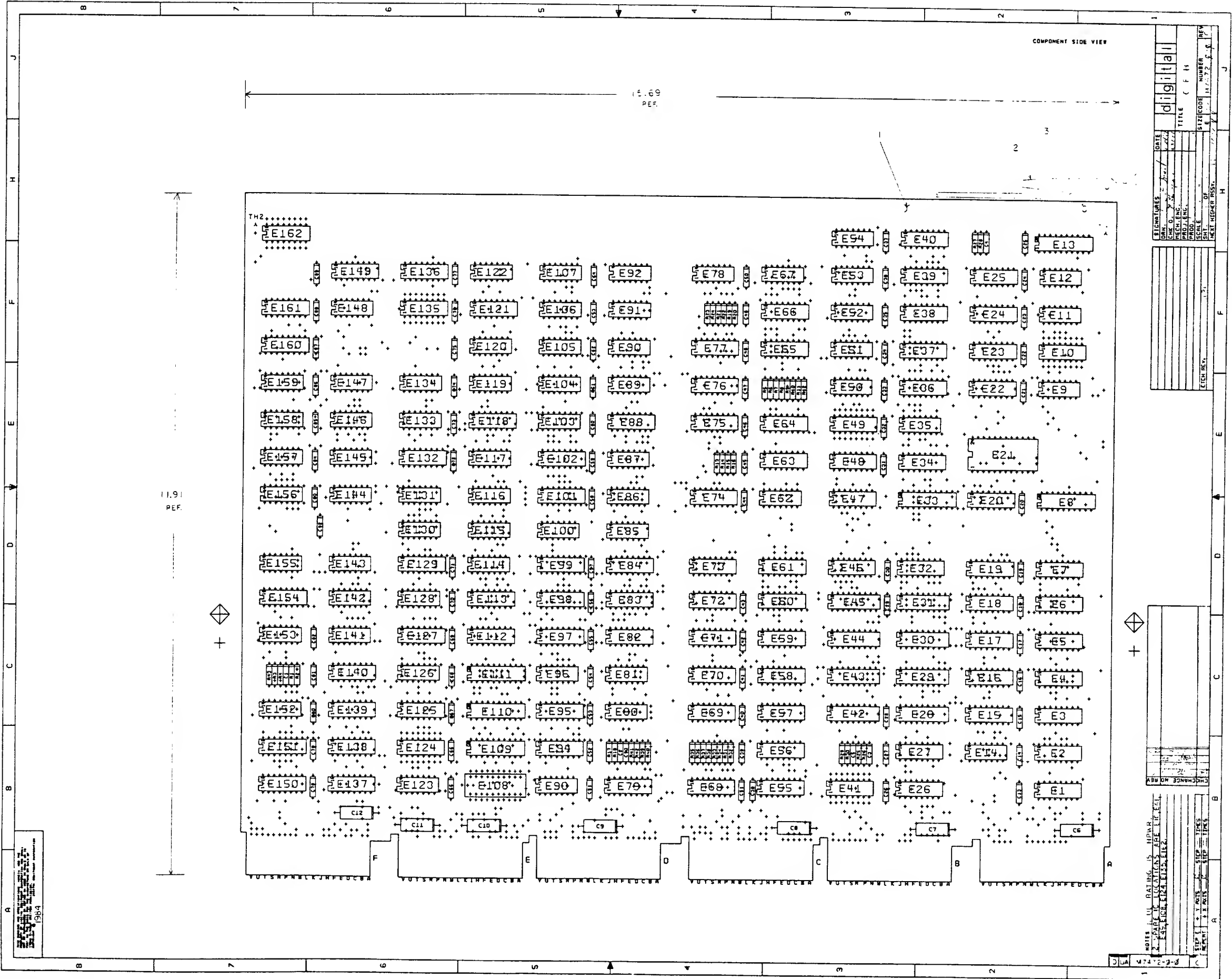






[illegible]





| SIGNATURES   | DATE    | REVISION | DESCRIPTION |
|--------------|---------|----------|-------------|
| DESIGNER     | 11/7/72 | 1        | INITIAL     |
| CHECKED      |         |          |             |
| APPROVED     |         |          |             |
| PROJECT      |         |          |             |
| SCALE        |         |          |             |
| SHEET NUMBER | 1       |          |             |

| REVISION | DATE    | DESCRIPTION |
|----------|---------|-------------|
| 1        | 11/7/72 | INITIAL     |
| 2        |         |             |
| 3        |         |             |
| 4        |         |             |
| 5        |         |             |
| 6        |         |             |
| 7        |         |             |
| 8        |         |             |
| 9        |         |             |
| 10       |         |             |
| 11       |         |             |
| 12       |         |             |
| 13       |         |             |
| 14       |         |             |
| 15       |         |             |
| 16       |         |             |
| 17       |         |             |
| 18       |         |             |
| 19       |         |             |
| 20       |         |             |
| 21       |         |             |
| 22       |         |             |
| 23       |         |             |
| 24       |         |             |
| 25       |         |             |
| 26       |         |             |
| 27       |         |             |
| 28       |         |             |
| 29       |         |             |
| 30       |         |             |
| 31       |         |             |
| 32       |         |             |
| 33       |         |             |
| 34       |         |             |
| 35       |         |             |
| 36       |         |             |
| 37       |         |             |
| 38       |         |             |
| 39       |         |             |
| 40       |         |             |
| 41       |         |             |
| 42       |         |             |
| 43       |         |             |
| 44       |         |             |
| 45       |         |             |
| 46       |         |             |
| 47       |         |             |
| 48       |         |             |
| 49       |         |             |
| 50       |         |             |
| 51       |         |             |
| 52       |         |             |
| 53       |         |             |
| 54       |         |             |
| 55       |         |             |
| 56       |         |             |
| 57       |         |             |
| 58       |         |             |
| 59       |         |             |
| 60       |         |             |
| 61       |         |             |
| 62       |         |             |
| 63       |         |             |
| 64       |         |             |
| 65       |         |             |
| 66       |         |             |
| 67       |         |             |
| 68       |         |             |
| 69       |         |             |
| 70       |         |             |
| 71       |         |             |
| 72       |         |             |
| 73       |         |             |
| 74       |         |             |
| 75       |         |             |
| 76       |         |             |
| 77       |         |             |
| 78       |         |             |
| 79       |         |             |
| 80       |         |             |
| 81       |         |             |
| 82       |         |             |
| 83       |         |             |
| 84       |         |             |
| 85       |         |             |
| 86       |         |             |
| 87       |         |             |
| 88       |         |             |
| 89       |         |             |
| 90       |         |             |
| 91       |         |             |
| 92       |         |             |
| 93       |         |             |
| 94       |         |             |
| 95       |         |             |
| 96       |         |             |
| 97       |         |             |
| 98       |         |             |
| 99       |         |             |
| 100      |         |             |



| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                    | QTY | PER VARIATION | REFERENCE DESIGNATOR                               |
|------|------|------------------|-------------|---------|--------------------------------|-----|---------------|--|
|      |      |                  |             |         | VARIATION REVISION LEVEL:      | 00  |               |  |
| 1    | 1    | D-MD-5016099-0-0 | 5016099-01  |         | ETCH CIRCUIT BOARD             | 1   |               |  |
| 2    | 2    |                  | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS | 1   |               |  |
| 3    | 3    |                  | 9000024-01  |         | EYELET,ROLLED 0.1210DX0.192    | 12  |               |  |
| 4    | 4    | —!               | 1017472-00  |         | 10 MFD 35V +50-10% AL EL       | 7   |               | C6-C12   |
| 5    | 5    |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF           | 6   |               | R32,R34,R36,R38,R40,R42                            |
| 6    | 6    |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF           | 6   |               | R31,R33,R35,R37,R39,R41                            |
| 7    | 7    |                  | 1301775-00  |         | 820.0 .25 W 5.0 % CF           | 9   |               | R6,R8,R10,R12,R14,R16,R20,R22,R24                  |
| 8    | 8    |                  | 1300309-00  |         | 390.0 .25 W 5.0 % CF           | 3   | CONT          | R3,R4,R43  |
| 9    | 9    |                  | 1301424-00  |         | 680.0 .25 W 5.0 % CF           | 5   |               | R2,R18,R26,R28,R30                                 |
| 10   | 10   |                  | 1300295-00  |         | 330.0 .25 W 5.0 % CF           | 14  | CONT          | R1,R5,R7,—!_R9,R11,R13,R15,R17,R21,R23,R25,R27,R29 |
| 11   | 11   |                  | 1911712-00  |         | 74S51 AND-OR GATE-INVERT D     | 2   |               | E134,E144  |
| 12   | 12   |                  | 1921315-01  |         | 74F86 EXCLUSIVE OR GATE,QU     | 1   |               | E133   |
| 13   | 13   |                  | 1921319-01  |         | 74F153 MUX,DUAL,4-IN           | 3   |               | E121,E137,E150                                     |
| 14   | 14   |                  | 1911469-00  | DEC     | 8640 RECEIVER,BUS,QUAD,U       | 1   |               | E119   |
| 15   | 15   |                  | 1913839-00  |         | LS165 SHIFT REG.,8BIT          | 8   |               | E97,E99,E118,E138-E140,E149,E151                   |
| 16   | 16   |                  | 1910545-00  |         | 74S112 FF-JK DUAL,EDGE TRIG    | 2   |               | E95,E113   |
| 17   | 17   |                  | 1921311-01  |         | 74F20 —!_NAND GATE,DUAL,4-IN   | 2   |               | E92,E122   |
| 18   | 18   |                  | 1921306-01  |         | 74F02 NOR GATE,QUAD,2-IN       | 1   |               | E90  |
| 19   | 19   |                  | 1912796-00  |         | 74148 ENCODER,PRIORITY,8 T     | 1   |               | E84  |
| 20   | 20   |                  | 1921309-01  |         | 74F10 NAND GATE,TRIPLE,3-I     | 6   |               | E78,E85,E87,E107,E146,E147                         |
| 21   | 21   |                  | 1921 317-01 |         | 74F139 DECODER,DUAL,1-OF-4     | 1   |               | E76  |
| 22   | 22   |                  | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL   | 2   |               | E68,E79  |
| 23   | 23   |                  | 1921316-01  |         | 74F138 DECODER/DEMUX,1-OF-8    | 2   |               | E66,E132   |
| 24   | 24   |                  | 1921324-01  |         | 74F175 FF-D,QUAD               | 5   |               | E65,E77,E125,E136,E154                             |
| 25   | 25   | —!               | 1912746-01  |         | 74S37-18BUFFER-GATE            | 1   |               | E62  |
| 26   | 26   |                  | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN       | 5   |               | E54,E96,E103,E106,E155                             |
| 27   | 27   |                  | 1921314-01  |         | 74F74 FF-D,DUAL,POS.,EDGE      | 2   |               | E52,E80  |
| 28   | 28   |                  | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN     | 2   |               | E51,E89  |

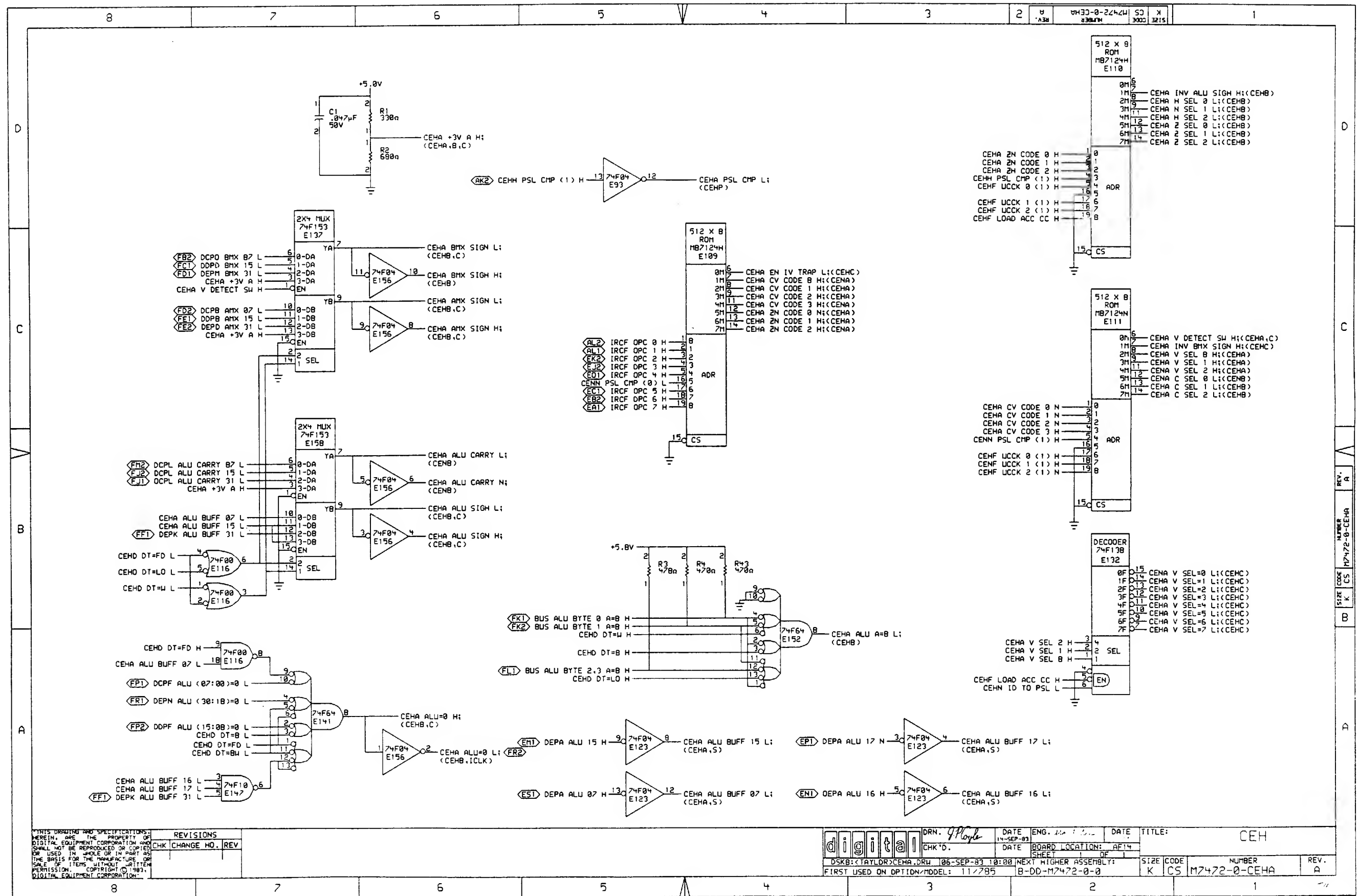
| REVISION HISTORY |             |     | BASIC PART NO: M7472    |  | DRN: P.GROSSE                   |  | DATE: 05-APR-83                     |  | D I G I T A L           |  |
|------------------|-------------|-----|-------------------------|--|---------------------------------|--|-------------------------------------|--|-------------------------|--|
| ENG              | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D: F.GAROFALO               |  | DATE: 05-APR-83                     |  | TITLE PARTS LIST        |  |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  | DES.ENG: GRANT LEE              |  | DATE: 04-AUG-83                     |  | DOCUMENT NUMBER         |  |
| KM               | M7472-TW001 | B   | (A) 00                  |  | RESP.ENG.: —!_ GRANT LEE        |  | DATE: 04-AUG-83                     |  | K PL M7472-0-DBP        |  |
| KS               | M7472-TW002 | C   | (B)                     |  | MFG.ENG.: MIKE KRYZAK           |  | DATE: 10-OCT-83                     |  | RELEASE DATE: 16-MAR-84 |  |
|                  |             |     | (C)                     |  | ASSEMBLY NUMBER: E-UA-M7472-0-0 |  | TOP DOCUMENT NUMBER: B-DD-M7472-0-0 |  | FILE NAME: Z3943C.PLS   |  |
|                  |             |     | (D)                     |  |                                 |  |                                     |  | EDIT # 10               |  |
|                  |             |     | (E)                     |  |                                 |  |                                     |  |                         |  |
|                  |             |     | (F)                     |  |                                 |  |                                     |  |                         |  |
|                  |             |     | (G)                     |  |                                 |  |                                     |  |                         |  |
|                  |             |     | (H)                     |  |                                 |  |                                     |  |                         |  |
|                  |             |     | (I)                     |  |                                 |  |                                     |  |                         |  |
|                  |             |     | (J)                     |  |                                 |  |                                     |  |                         |  |
|                  |             |     | (K)                     |  |                                 |  |                                     |  |                         |  |
|                  |             |     | (L)                     |  |                                 |  |                                     |  |                         |  |
|                  |             |     | (M)                     |  |                                 |  |                                     |  |                         |  |
|                  |             |     | (N)                     |  |                                 |  |                                     |  |                         |  |

"THIS DRAWING AND —!\_ THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."

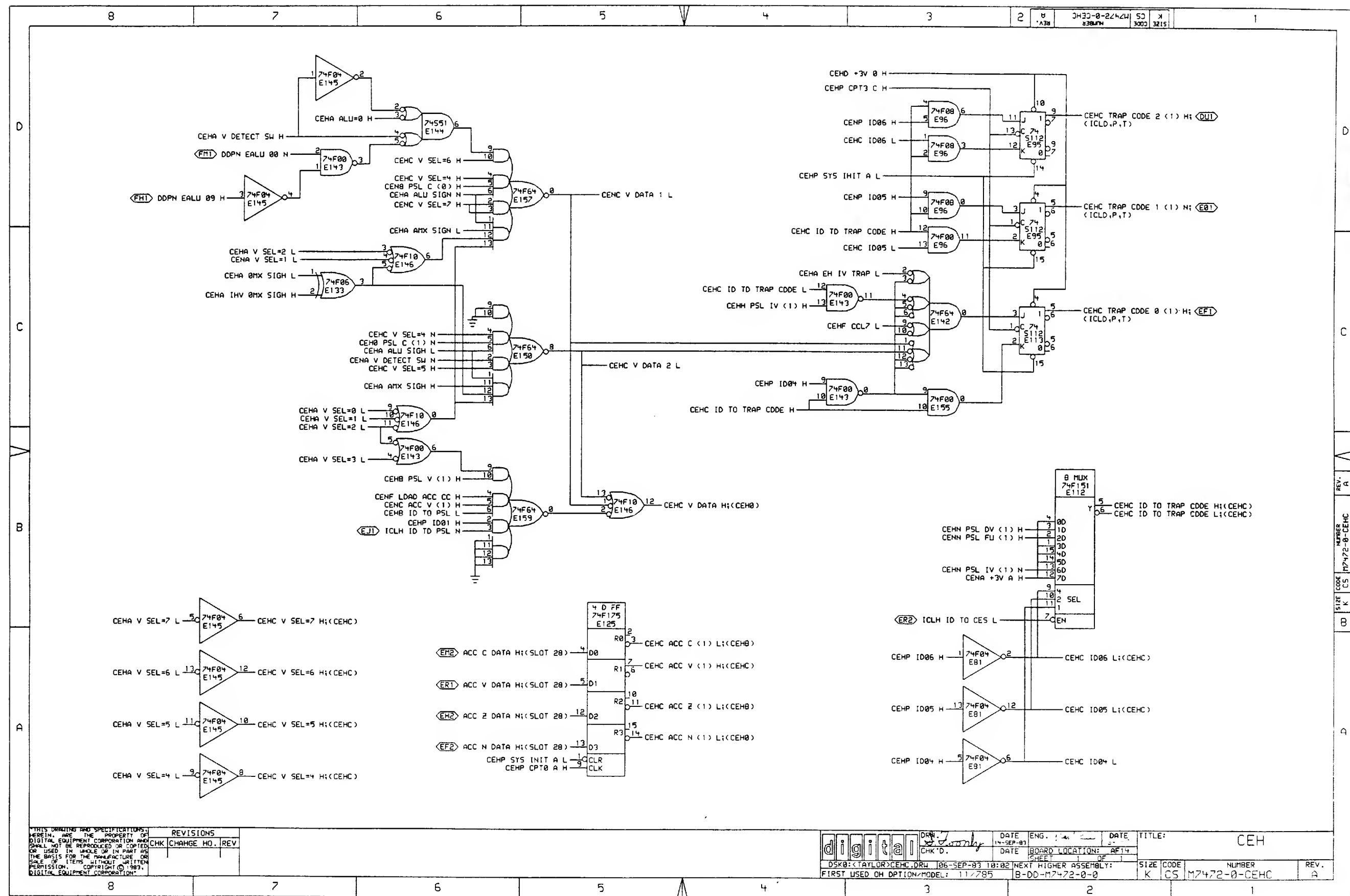
| AU   |      | TOMATED BY PRTLST.4Q(50) |             | P A R T S L I S T             |                                  | SHEET A2 OF A2    |                                       |
|------|------|--------------------------|-------------|-------------------------------|----------------------------------|-------------------|---------------------------------------|
| LINE | ITEM | TOP DOCUMENT             | PART NUMBER | MIN REV                       | DESCRIPTION                      | QTY PER VARIATION | REFERENCE DESIGNATOR                  |
|      |      |                          |             |                               | VARIATION REVISION LEVEL:        | 00                |                                       |
| 29   | 29   |                          | 1921305-01  | —!                            | 74F00 NAND GATE,QUAD,2-IN        | 11                | E35,E50,E53,E105,E114,E116,E117,      |
| 30   | 30   |                          | 1921323-01  |                               | 74F174 FF-D,HEX                  | 3                 | CONT E120,E126,E143,E148              |
| 31   | 31   |                          | 1912586-01  |                               | 85S68A REGISTER,16X4 EDGE T      | 8                 | E32,E46,E47                           |
| 32   | 32   |                          | 1921327-01  |                               | 74F194 SHIFT REG,UNIV,8IDIR      | 13                | E28-E31,E42-E45                       |
| 33   | 33   |                          | 1921320-01  |                               | 74F157 MUX,QUAD,2-IN             | 6                 | CONT E23,E25,E34,E37,E39,E48,E63,E64, |
| —!   | 34   | 34                       | 1921325-01  |                               | 74F181 ALU,4-8IT                 | 1                 | E74,E75,E82,E94,E101                  |
| 35   | 35   |                          | 1921321-01  |                               | 74F158 MUX,QUAD,2-IN             | 3                 | E22,E24,E36,E38,E102,E160             |
| 36   | 36   |                          | 1921313-01  |                               | 74F64 AND OR INVERT GATE,4-      | 10                | E21                                   |
| 37   | 37   |                          | 1912089-00  |                               | 74S85 CMPRTR-48IT MAGNITUD       | 1                 | E20,E83,E88                           |
| 38   | 38   |                          | 1921307-01  |                               | 74F04 HEX INVERTER               | 15                | CONT E12,E115,E130,E131,E141,E142,    |
| 39   | 39   |                          | 2302882-00  | 82-03                         |                                  | 2                 | E152,E157-E 159                       |
| 40   | 40   | BLANK                    |             | *** THIS ITEM IS NOT USED *** |                                  | —!                | E40                                   |
| 41   | 41   |                          | 2302582-00  | 82-03                         |                                  | 1                 | CONT E9,E11,E14,E67,E81,E86,E91,E93,  |
| 42   | 42   |                          | 2302682-00  | 82-03                         |                                  | 1                 | E100,E104,E123,E128,E145,E153,        |
| 43   | 43   |                          | 2302782-00  | 82-03                         |                                  | 1                 | CONT E156                             |
| 44   | 44   |                          | 1921322-01  |                               | 74F161 8INARY COUNTER,PRES       | 4                 | E8,E33                                |
| 45   | 45   |                          | 1921318-01  |                               | 74F151 MUX,8-IN                  | 20                | E109                                  |
| 46   | 46   |                          | 1913788-00  |                               | 26S10 TRANSCEIVER,BUS,QUA        | 6                 | E110                                  |
| 47   | 47   |                          | 1012784-00  | .047 MFD                      | 50V +80-20% CER                  | 85                | E111                                  |
| 48   | 48   |                          | 1922192-01  |                               | 74F382 4-8IT ARITHMETIC LOGIC UN | 1                 | E7,E19,E61,E73                        |
| 49   | 49   |                          | 1911983-00  |                               | 74S133 NAND GATE-POSITIVE        | 1                 | CONT E3-E6,E15-E18,E57-E60,E69-E72,   |
| 50   | 50   |                          | 9105740-55  | WIRE(WRAP)                    | 30AWG KYNAR UL14 A/R             | 1                 | E112,E127,E129,E161                   |
|      |      |                          |             |                               |                                  |                   | E1,E2,E26,E27,E55,E56                 |
|      |      |                          |             |                               |                                  |                   | C1-C5,C13-C92                         |
|      |      |                          |             |                               |                                  |                   | E13                                   |
|      |      |                          |             |                               |                                  |                   | E98                                   |

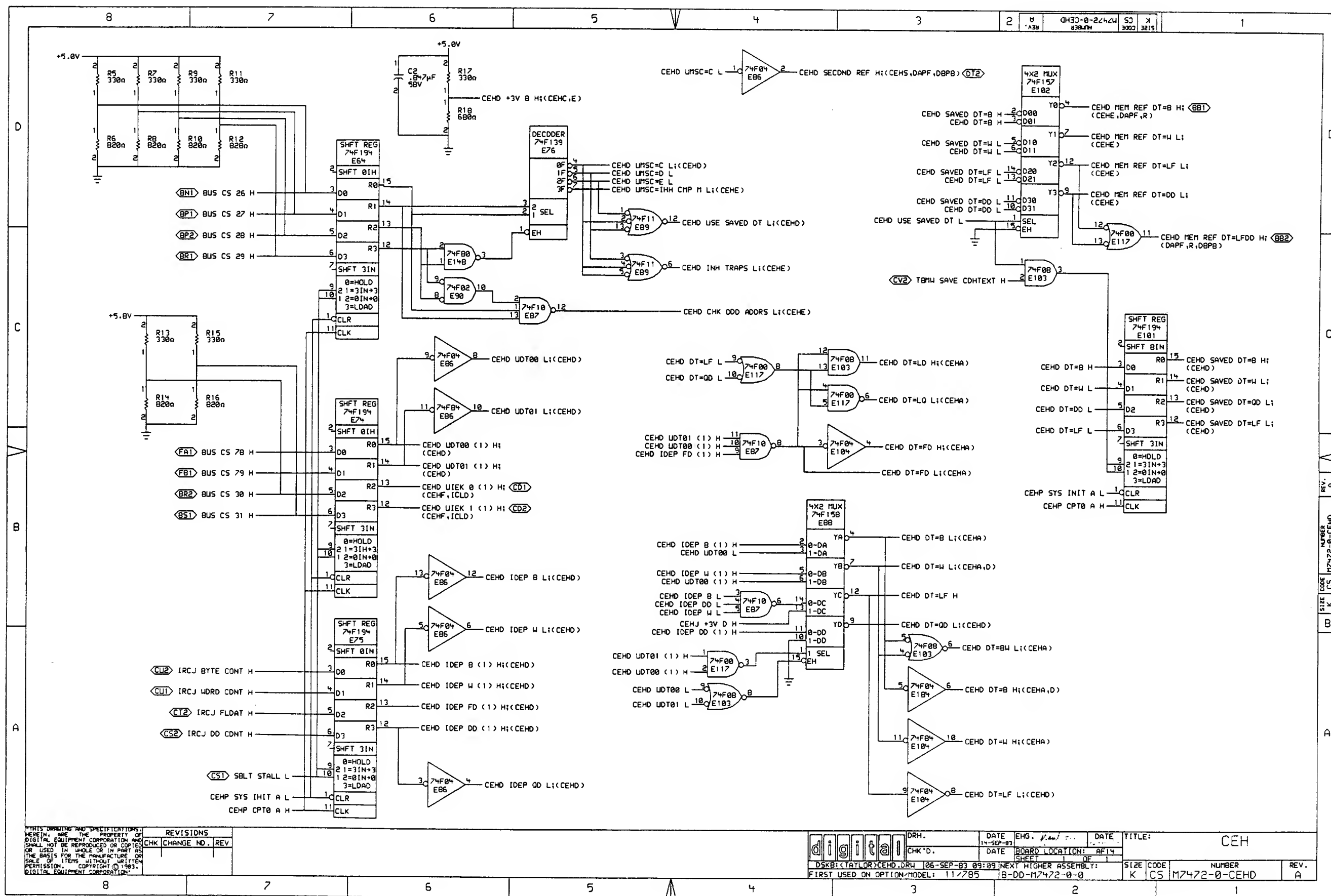
51 NOTE: 1.SPARE I.C.'S ARE E13,E41,E49,E124,E135,E162,& E10.

| D I G I T A L |  | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|---------------|--|-------|----------------|------|------|-----------------|-----|
|               |  | CEH   |                | K    | PL   | M7472-0-D8P     | C   |







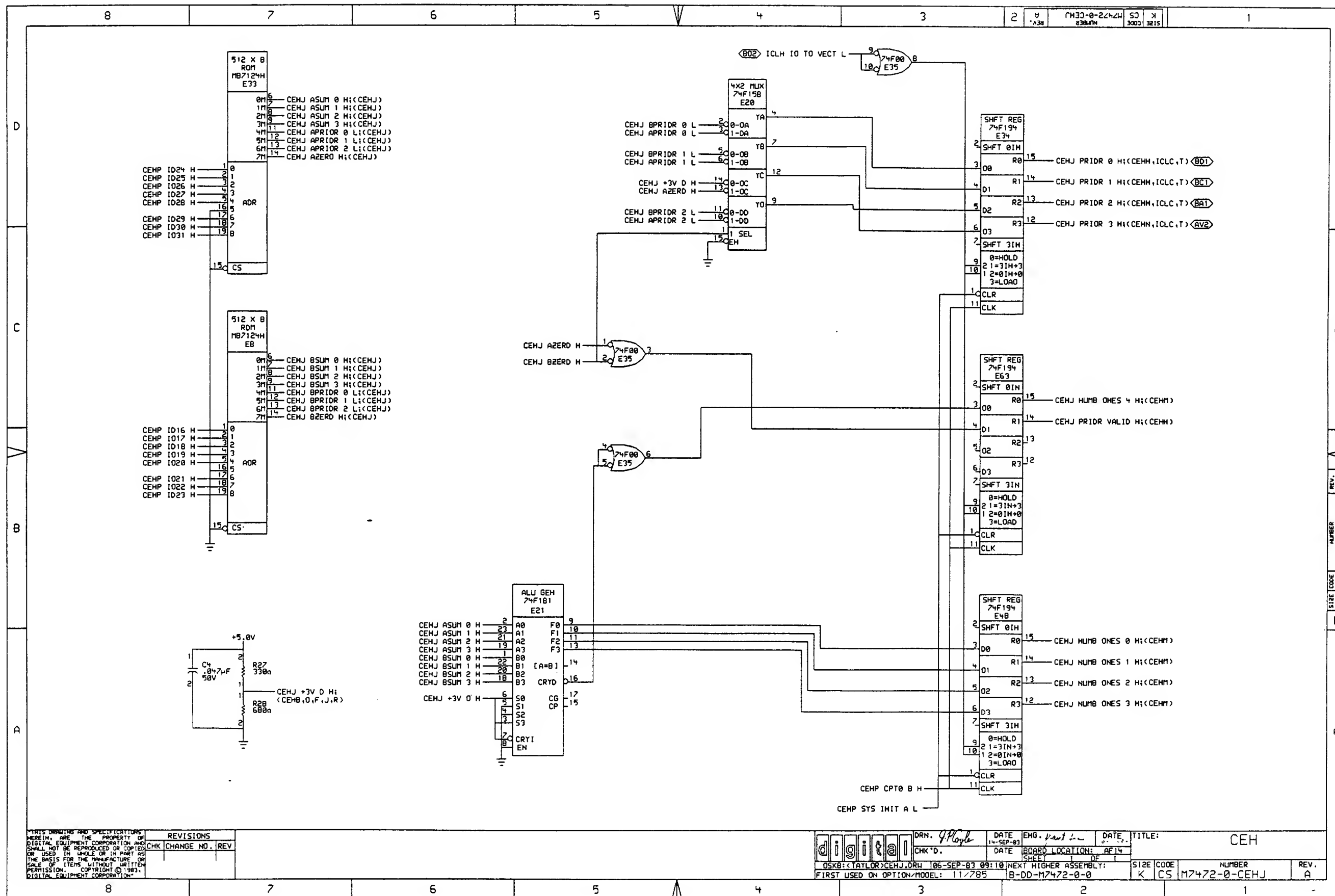


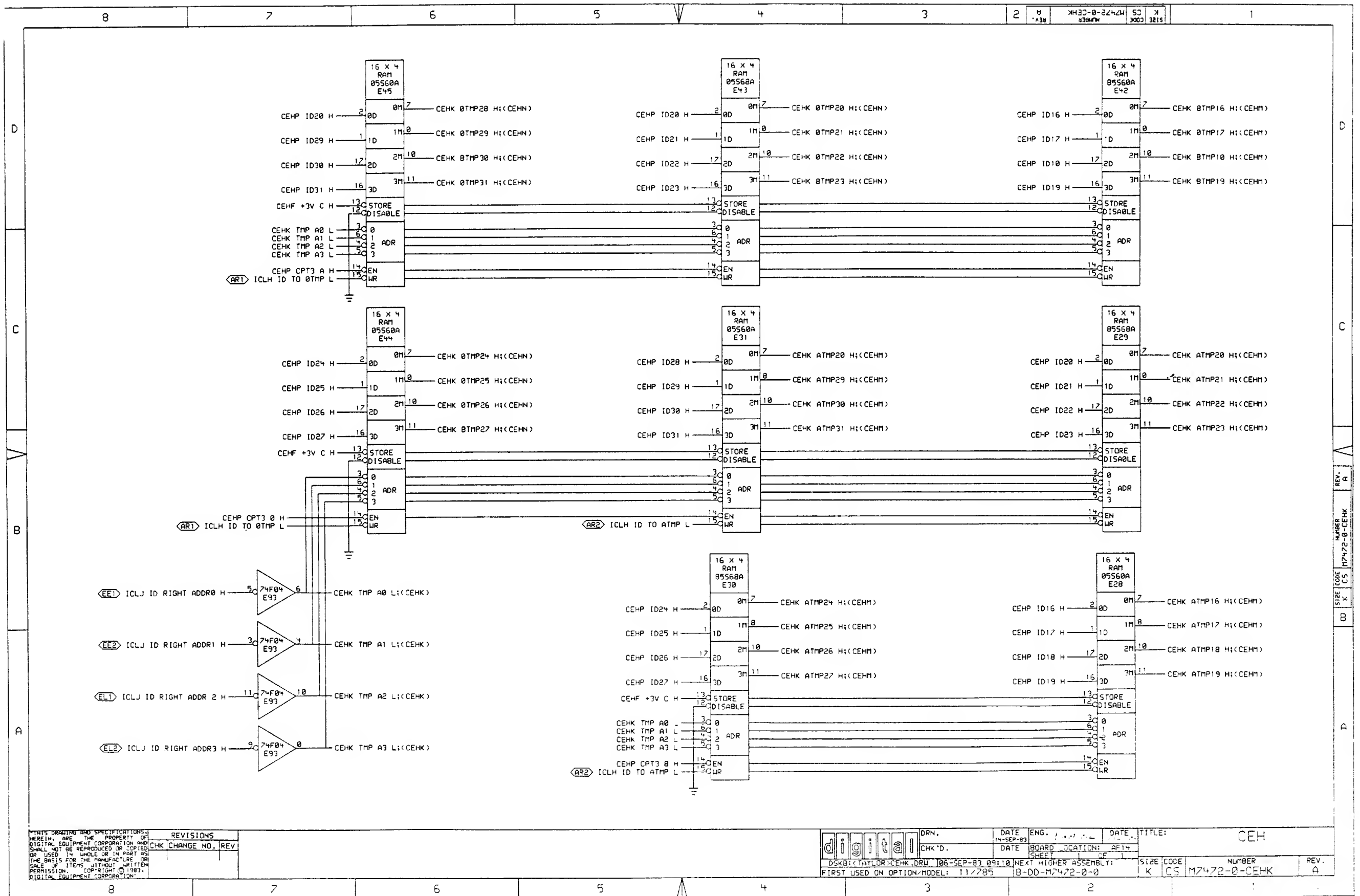


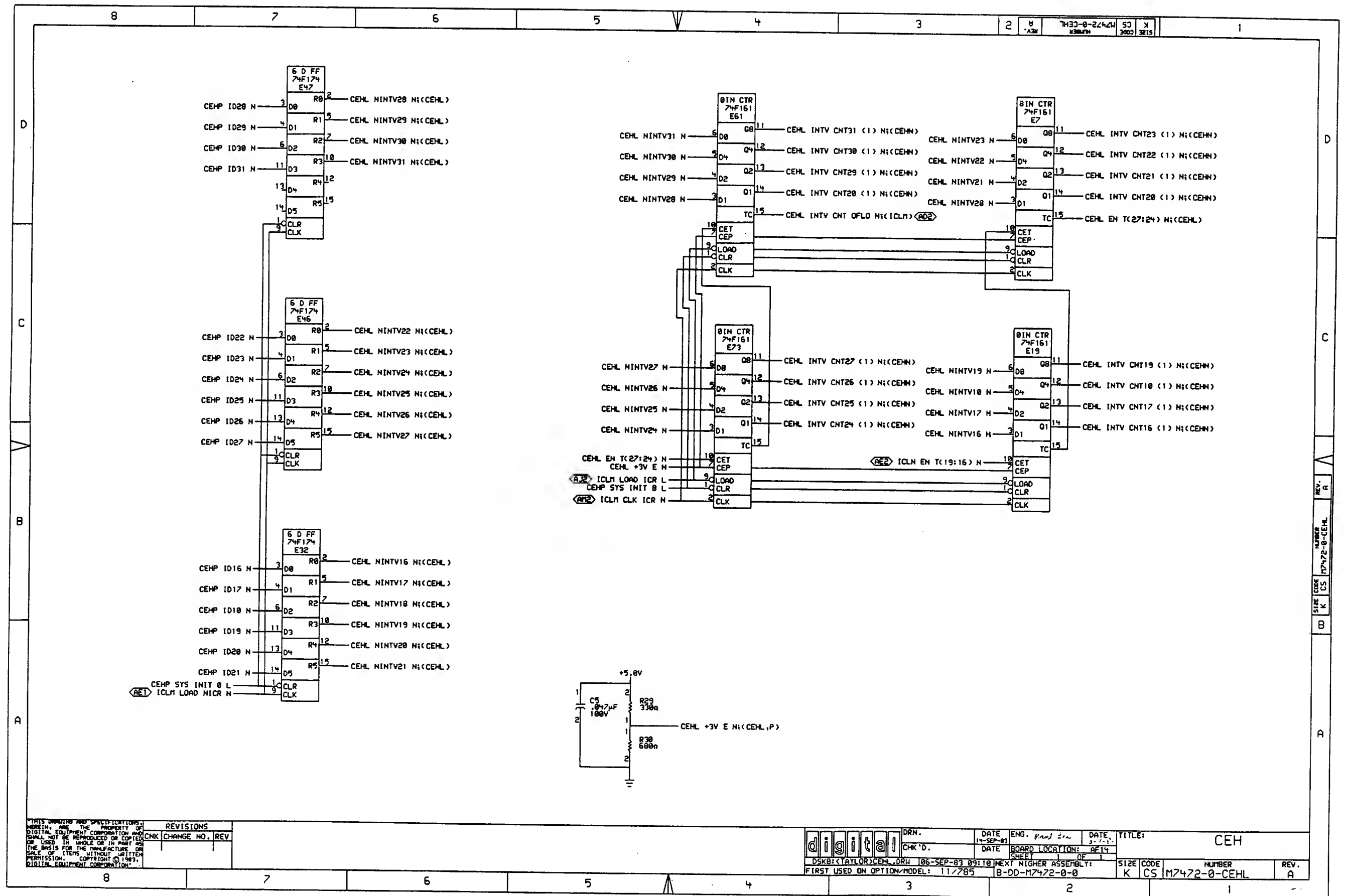


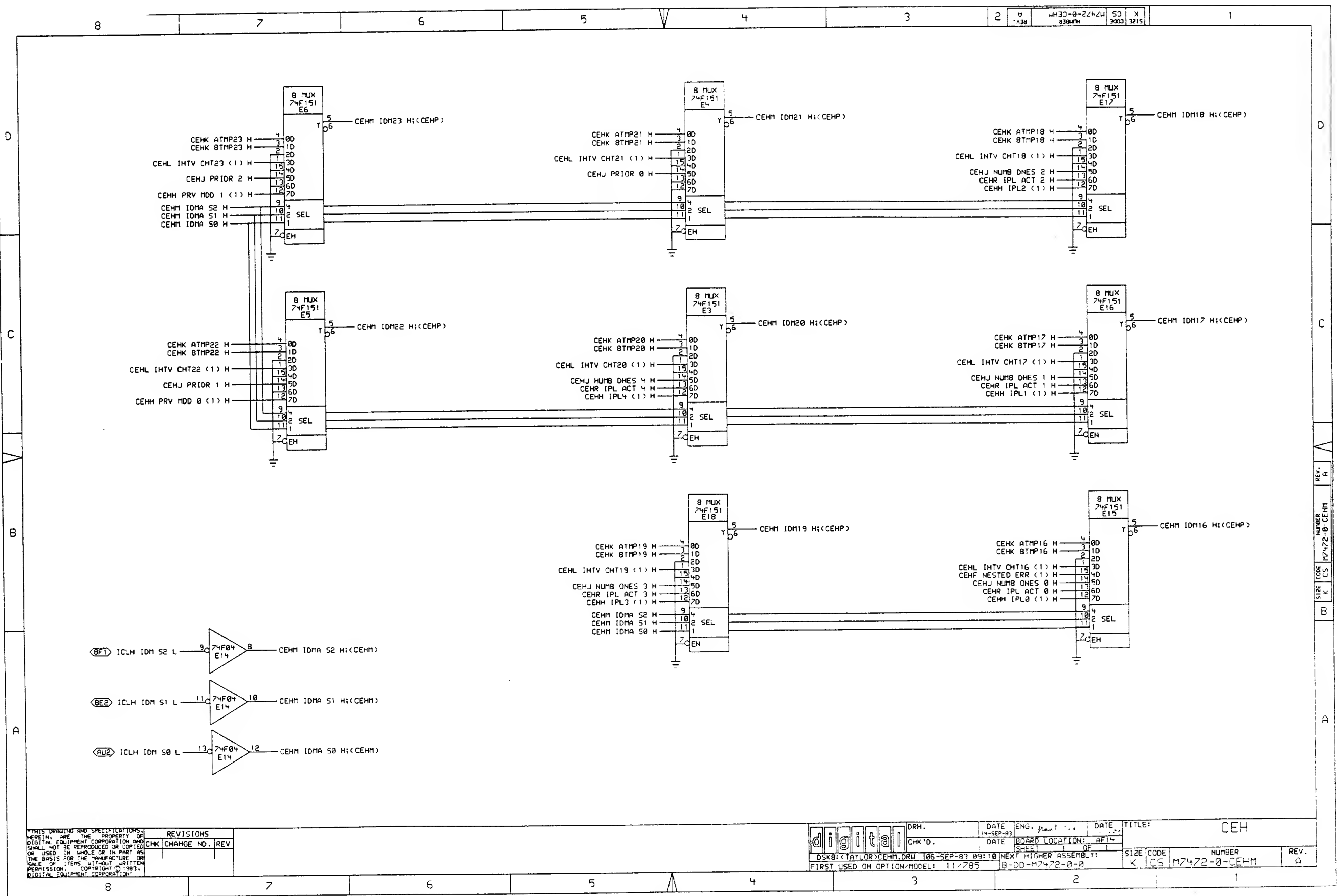


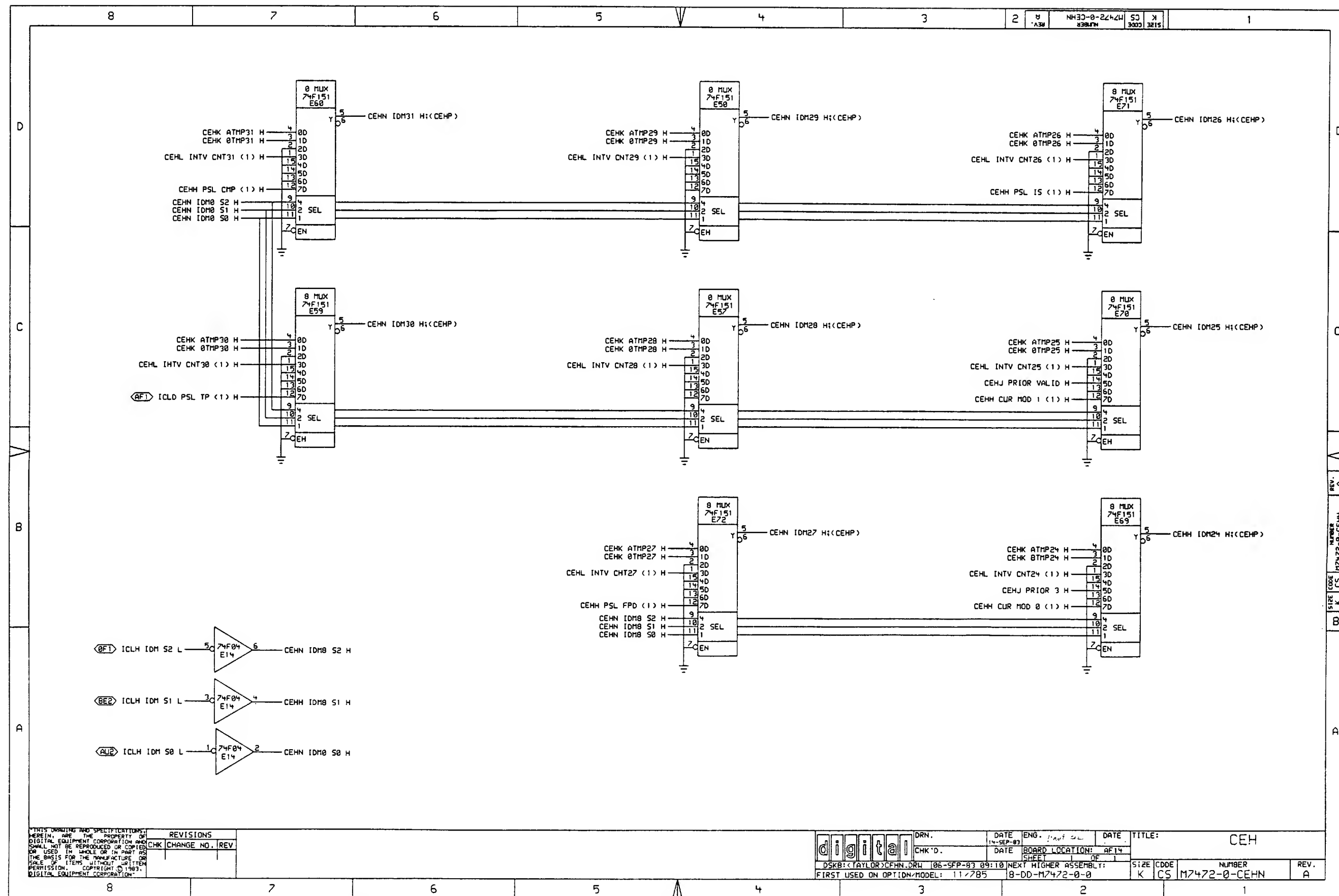




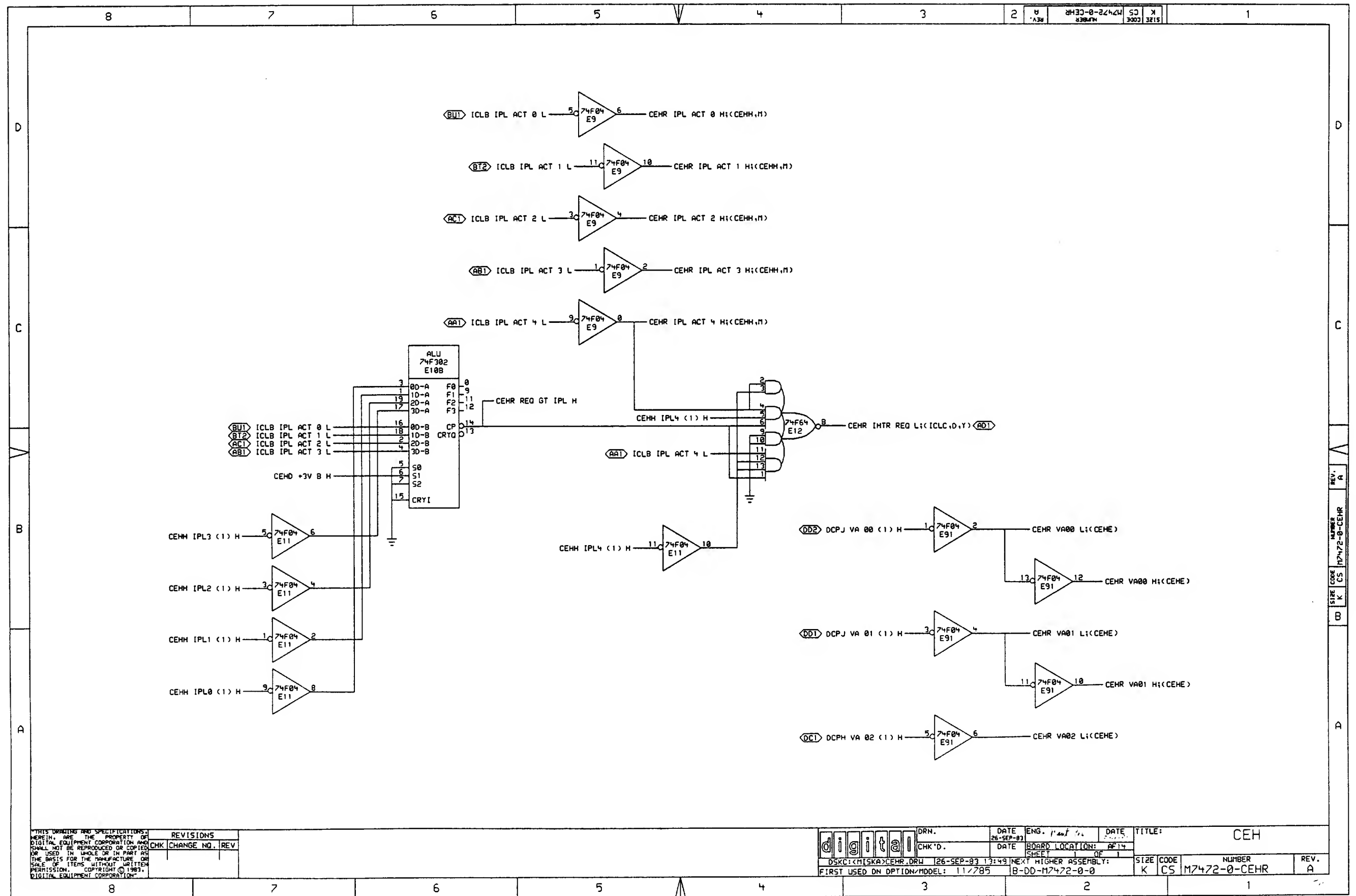




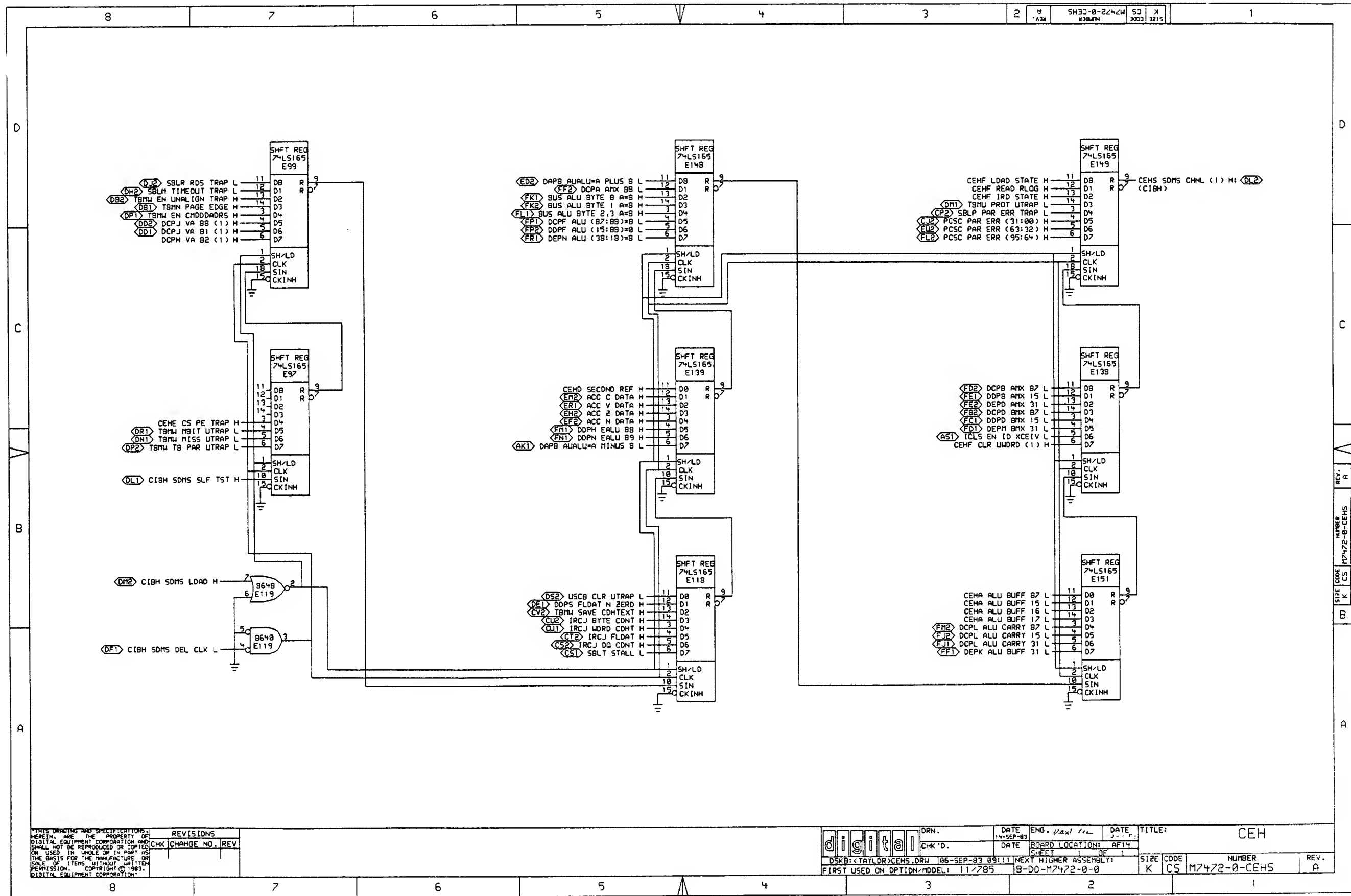






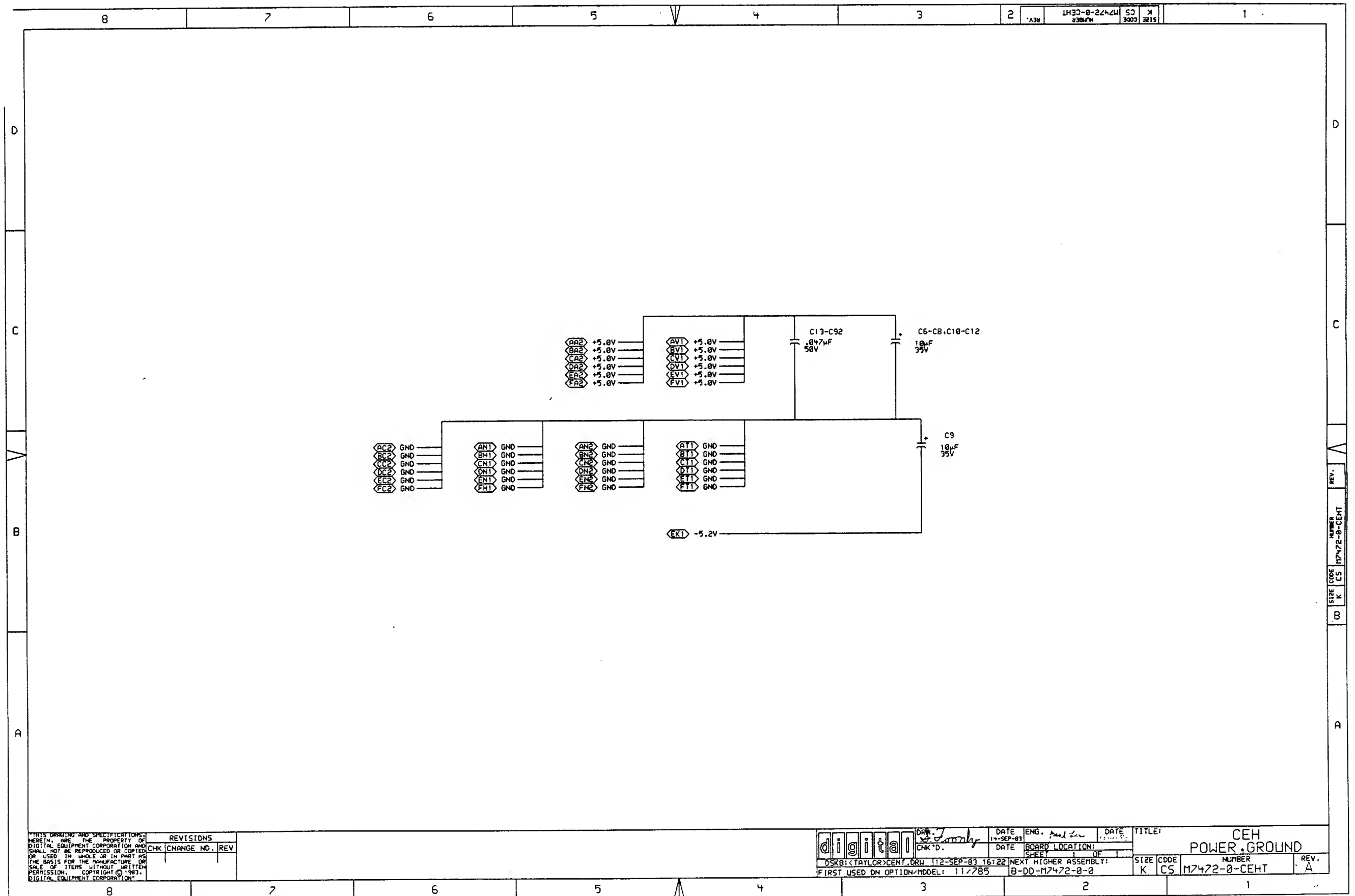






| REVISIONS |                 |
|-----------|-----------------|
| CHK       | CHANGE NO. REV. |
|           |                 |
|           |                 |
|           |                 |

|  |                |                       |              |                       |
|--|----------------|-----------------------|--------------|-----------------------|
| DRN.                                   | DATE 11-SEP-83 | ENG. NAME             | DATE 3-1-83  | TITLE: CEH            |
| CHK'D.                                 | DATE           | BOARD LOCATION: AF14  | SHEET 1 OF 1 |                       |
| DSKB: <TAYLOR>CEHS.DRW 06-SEP-83 09:11 |                | NEXT HIGHER ASSEMBLY: |              | SIZE CODE NUMBER REV. |
| FIRST USED ON OPTION/MODEL: 11/785     |                | B-D0-M7472-0-0        |              | K CS M7472-0-CEHS A   |









| 8                      |  | 7              |  | 6           |  | 5              |  | 4           |  | 3              |  | 2           |  | 1              |  |
|------------------------|--|----------------|--|-------------|--|----------------|--|-------------|--|----------------|--|-------------|--|----------------|--|
| SIGNAL NAME            |  | PAGE NUMBER(S) |  | SIGNAL NAME |  | PAGE NUMBER(S) |  | SIGNAL NAME |  | PAGE NUMBER(S) |  | SIGNAL NAME |  | PAGE NUMBER(S) |  |
| DEPA ALU 07 H          |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| DEPA ALU 15 H          |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| DEPA ALU 16 H          |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| DEPA ALU 17 H          |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| DEPD AMX 31 L          |  | CEHA,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| DEPK ALU BUFF 31 L     |  | CEHA,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| DEPM BMX 31 L          |  | CEHA,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| DEPN ALU (30:18)=0 L   |  | CEHS,A         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLB IPL ACT 0 L       |  | CEHR           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLB IPL ACT 1 L       |  | CEHR           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLB IPL ACT 2 L       |  | CEHR           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLB IPL ACT 3 L       |  | CEHR           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLB IPL ACT 4 L       |  | CEHR           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLD PSL TP (1)H       |  | CEHN           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLF CNL CMD M L       |  | CEHE           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLH ID TO ATMP L      |  | CEHK           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLH ID TO BTMP L      |  | CEHK           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLH ID TO CES L       |  | CEHC           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLH ID TO PSL H       |  | CEHH,B,C       |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLH ID TO VECT L      |  | CEHJ           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLJ ID RIGHT ADDR 2 H |  | CEHK           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLJ ID RIGHT ADDR0 H  |  | CEHK           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLJ ID RIGHT ADDR1 H  |  | CEHK           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLJ ID RIGHT ADDR3 H  |  | CEHK           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLM CLK ICR H         |  | CEHL           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLM LOAD NICR H       |  | CEHL           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| ICLN EN T(19:16) N     |  | CEHL           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCF OPC 0 H           |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCF OPC 1 H           |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCF OPC 2 H           |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCF OPC 3 H           |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCF OPC 4 H           |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCF OPC 5 H           |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCF OPC 6 H           |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCF OPC 7 H           |  | CEHA           |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCU BYTE CONT H       |  | CEHD,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCU DQ CONT H         |  | CEHD,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCU FLOAT H           |  | CEHD,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| IRCU WORD CONT H       |  | CEHD,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| PCSC PAR ERR (31:00) H |  | CEHE,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| PCSC PAR ERR (63:32) H |  | CEHE,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| PCSC PAR ERR (95:64) H |  | CEHE,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| TBMN PAGE EDGE H       |  | CEHS,E         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| TBMN EN CMDDADRS H     |  | CEHS,E         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| TBMN EN UNALIGN TRAP H |  | CEHS,E         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| TBMN SAVE CONTEXT H    |  | CEHD,S         |  |             |  |                |  |             |  |                |  |             |  |                |  |
| USCB CLR UNDRD H       |  | CEHF           |  |             |  |                |  |             |  |                |  |             |  |                |  |

NOTES:

1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983. DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |                |
|-----------|----------------|
| CHK       | CHANGE NO. REV |
|           |                |

digital

DATE 22-SEP-83

CHK'D.

DATE 22-SEP-83

ENG. J. J. J.

DATE

BOARD LOCATION: AF14

SHEET 1 OF 1

DSK: (MISKA)CEHX.DRW 119-SEP-83 14:36

FIRST USED ON OPTION/MODEL: 11/285

NEXT HIGHER ASSEMBLY: B-DD-M7472-0-0

SIZE CODE K CS

NUMBER M7472-0-CEHX

REV. A

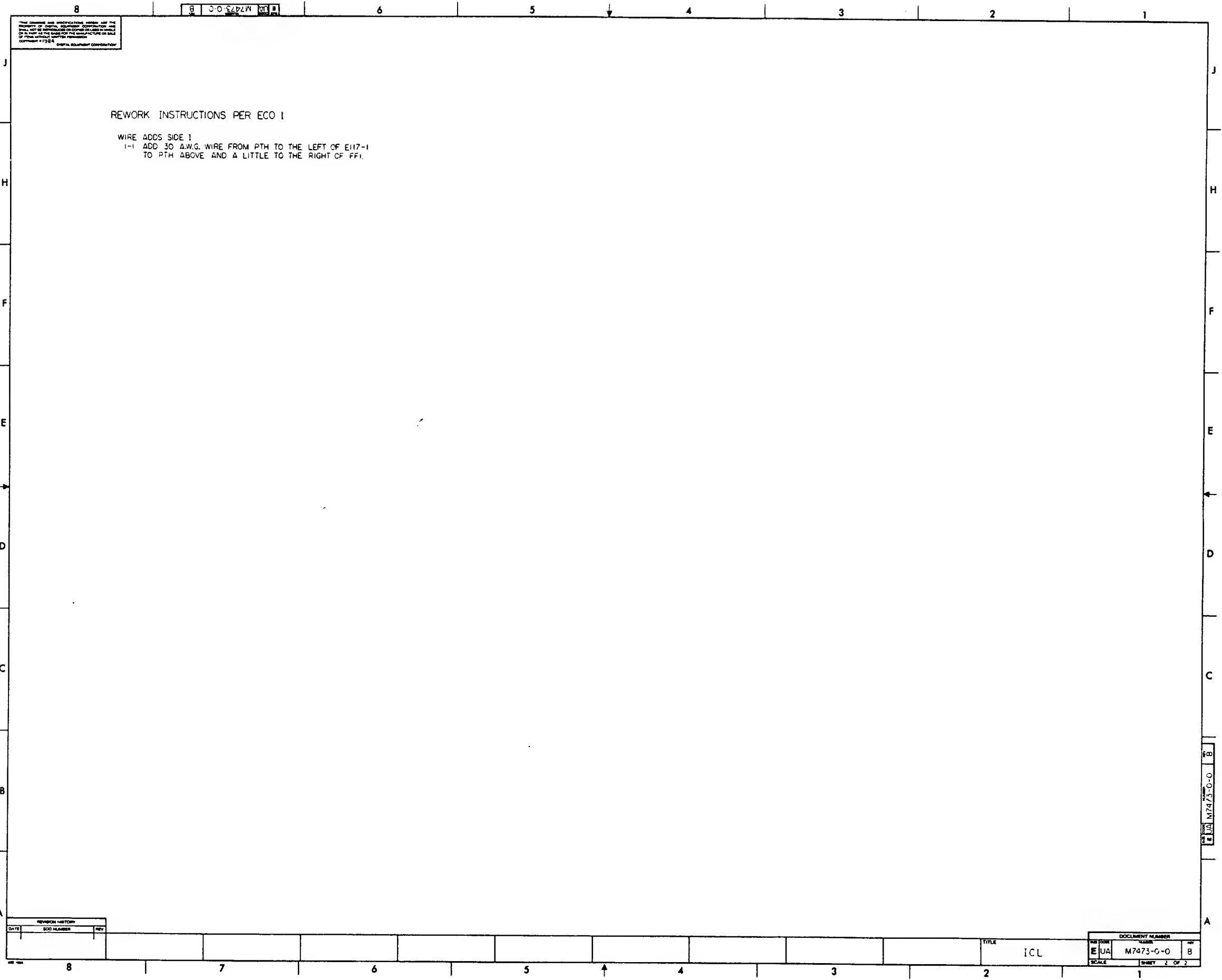
TITLE: CEH FORWARD REFERENCE











| LINE ITEM |    | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                      | QTY PER VARIATION | REFERENCE DESIGNATOR  |
|-----------|----|------------------|-------------|---------|----------------------------------|-------------------|---|
|           |    |                  |             |         | VARIATION REVISION LEVEL:        | 00                |   |
| 1         | 1  | D-MD-5016100-0-0 | 5016100-01  |         | ETCH CIRCUIT BOARD               | 1                 |   |
| 2         | 2  |                  | 1012084-01  | 8       | MFD 25V +75-10% AL EL            | 7                 | C1-C7   |
| 3         | 3  |                  | 1012784-00  | .047    | MFD 50V +80-20% CER              | 92                | C8-C99  |
| 4         | 4  |                  | 1300247-00  | 120.0   | .25 W 5.0 % CF                   | 8                 | R15-R22   |
| 5         | 5  |                  | 1300250-00  | 150.0   | .25 W 5.0 % CF                   | 8                 | R23-R30   |
| 6         | 6  |                  | 1300295-00  | 330.0   | .25 W 5.0 % CF                   | 7                 | R1,R3,R5,R6,R7,R11,R13  |
| 7         | 7  |                  | 1301424-00  | 680.0   | .25 W 5.0 % CF                   | 4                 | R2,R4,R12,R14   |
| 8         | 8  |                  | 1301775-00  | 820.0   | .25 W 5.0 % CF                   | 3                 | R8,R9,R10   |
| 9         | 9  |                  | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN        | 6                 | E57,E58,E110,E115,E122,E128                                   |
| 10        | 10 |                  | 1921307-01  |         | 74F04 HEX INVERTER               | 13                | E14,E38,E53,E75,E83,E94,E97,<br>E112,E119,E120,E125,E136,E143 |
| 11        | 11 |                  | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN         | 2                 | E37,E141  |
| 12        | 12 |                  | 1921309-01  |         | 74F10 NAND GATE,TRIPLE,3-I       | 5                 | E68,E98,E123,E129,E142  |
| 13        | 13 |                  | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN       | 3                 | E101,E109,E127  |
| 14        | 14 |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN        | 1                 | E108  |
| 15        | 15 |                  | 1912746-01  |         | 74S37-1BUFFER-GATE               | 2                 | E35,E71   |
| 16        | 16 |                  | 1911712-00  |         | 74S51 AND-OR GATE-INVERT D       | 4                 | E51,E74,E126,E140   |
| 17        | 17 |                  | 1921313-01  |         | 74F64 AND OR INVERT GATE,4-      | 4                 | E26,E62,E36,E121  |
| 18        | 18 |                  | 1921314-01  |         | 74F74 FF-D,DUAL,POS.,EDGE        | 5                 | E25,E50,E99,E100,E106   |
| 19        | 19 |                  | 1922192-01  |         | 74F382 4-BIT ARITHMETIC LOGIC UN | 1                 | E95   |
| 20        | 20 |                  | 1910545-00  |         | 74S112 FF-JK DUAL,EDGE TRIG      | 2                 | E13,E113  |
| 21        | 21 |                  | 1921316-01  |         | 74F138 DECODER/DEMUX,1-OF-B      | 2                 | E89,E114  |
| 22        | 22 |                  | 1921317-01  |         | 74F139 DECODER,DUAL,1-OF-4       | 1                 | E96   |
| 23        | 23 |                  | 1912796-00  |         | 74148 ENCODER,PRIORITY,8 T       | 4                 | E32,E49,E73,E88   |
| 24        | 24 |                  | 1921318-01  |         | 74F151 MUX,8-IN                  | 17                | E1-E7,E15,E28,E29,E31,E44,E45,<br>E46,E54,E55,E135            |
| 25        | 25 |                  | 1921319-01  |         | 74F153 MUX,DUAL,4-IN             | 5                 | E60,E61,E132,E133,E139  |
| 26        | 26 |                  | 1921320-01  |         | 74F157 MUX,QUAD,2-IN             | 2                 | E69,E118  |
| 27        | 27 |                  | 1921321-01  |         | 74F158 MUX,QUAD,2-IN             | 7                 | E64,E90,E92,E105,E111,E116,E117                               |
| 28        | 28 |                  | 1921323-01  |         | 74F174 FF-D,HEX                  | 4                 | E8,E11,E22,E91  |

| REVISION HISTORY |            |     | BASIC PART NO: M7473    |  | DRN:             | A.RUSZCZYK | DATE:                | 01-FEB-83 | D I G I T A L           |      |             |     |
|------------------|------------|-----|-------------------------|--|------------------|------------|----------------------|-----------|-------------------------|------|-------------|-----|
| ENG              | ECO NUMBER | REV | SECTION A OF A          |  |                  |            |                      |           | TITLE PARTS LIST        |      |             |     |
| ---              | INITIAL    | A   | SECTION VARIATION INDEX |  | CHK'D:           | F GAROFALO | DATE:                | 05-JUL-83 | ICL                     |      |             |     |
|                  |            |     | (A) 00                  |  |                  |            |                      |           |                         |      |             |     |
|                  |            |     | (B)                     |  |                  |            |                      |           |                         |      |             |     |
|                  |            |     | (C)                     |  | DES.ENG:         | GRANT LEE  | DATE:                | 01-AUG-83 | DOCUMENT NUMBER         |      |             |     |
|                  |            |     | (D)                     |  |                  |            |                      |           | SIZE                    | CODE | NUMBER      | REV |
|                  |            |     | (E)                     |  |                  |            |                      |           | K                       | PL   | M7473-0-08P | A   |
|                  |            |     | (F)                     |  | RESP.ENG.:       | GRANT LEE  | DATE:                | 01-AUG-83 |                         |      |             |     |
|                  |            |     | (H)                     |  |                  |            |                      |           |                         |      |             |     |
|                  |            |     | (J)                     |  | MFG.ENG.:        | M.KRYSAK   | DATE:                | 13-SEP-83 | RELEASE DATE: 14-OCT-83 |      |             |     |
|                  |            |     | (K)                     |  |                  |            |                      |           |                         |      |             |     |
|                  |            |     | (L)                     |  |                  |            |                      |           |                         |      |             |     |
|                  |            |     | (M)                     |  | ASSEMBLY NUMBER: |            | TOP DOCUMENT NUMBER: |           | FILE NAME:              |      | EDIT #      |     |
|                  |            |     | (N)                     |  | E-UA-M7473-0-0   |            | 8-DD-M7473-0-0       |           | Z3946A.PLS              |      | 7           |     |

THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS.

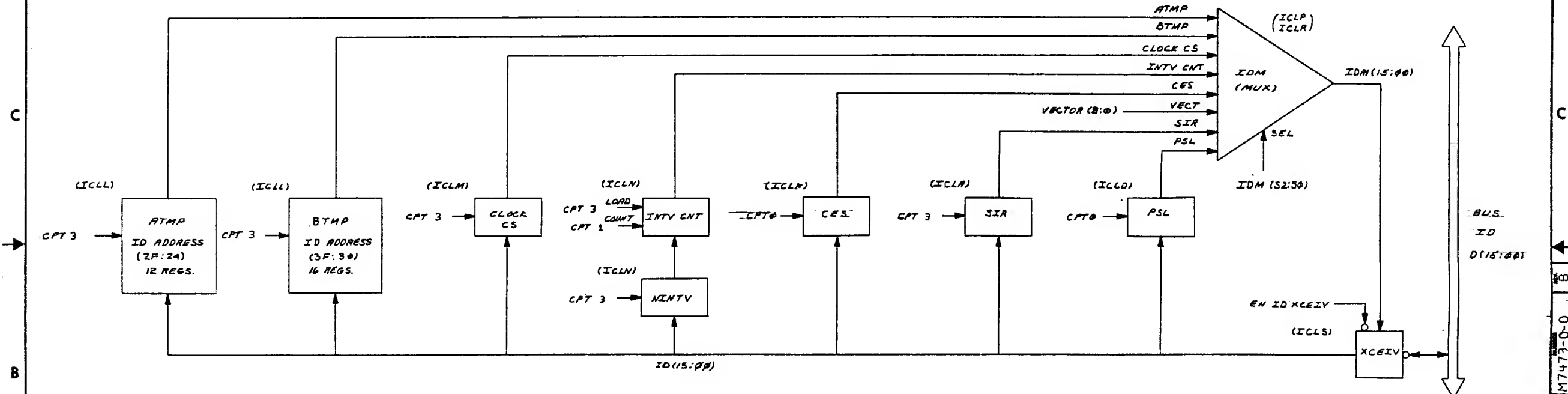
| AUTOMATED BY PRTLST,4Q(50) |      |              | P A R T S L I S T |       |                                  |     | SHEET A2 OF A2 |                                 |
|----------------------------|------|--------------|-------------------|-------|----------------------------------|-----|----------------|---------------------------------|
| LINE                       | ITEM | TOP DOCUMENT | PART NUMBER       | MIN   | DESCRIPTION                      | QTY | PER VARIATION  | REFERENCE DESIGNATOR            |
|                            |      |              |                   | REV   |                                  |     |                |                                 |
| VARIATION REVISION LEVEL:  |      |              |                   |       |                                  |     |                |                                 |
| 29                         | 29   |              | 1921324-01        |       | 74F175 FF-D,QUAD                 | 13  |                | E16,E21,E33,E47,E67,E72,E85,E87 |
| 30                         | 30   |              | 1921327-01        |       | 74F194 SHIFT REG,UNIV,8IDIR      | 5   | CONT           | E93,E102,E103,E104,E124         |
| 31                         | 31   |              | 1913839-00        |       | LS165 SHIFT REG.,8BIT            | 8   |                | E48,E56,E59,E65,E81             |
|                            |      |              |                   |       |                                  |     | CONT           | E27,E78,E80,E82,E84,E131,E134,  |
| 32                         | 32   |              | 1912586-01        |       | 85S68A REGISTER,16X4 EDGE T      | 8   |                | E137                            |
| 33                         | 33   |              | 1921322-01        |       | 74F161 BINARY COUNTER,PRES       | 5   |                | E17-E20,E30,E42,E43,E66         |
| 34                         | 34   |              | 1921720-01        |       | 10H125 TRANSLATOR ECL TO TTL QUA | 2   |                | E9,E10,E12,E23,E24              |
| 35                         | 35   |              | 1913788-00        |       | 26S10 TRANSCEIVER,BUS,QUA        | 4   |                | E52,E63                         |
| 36                         | 36   |              | 1911469-00        | DEC   | 8640 RECEIVER,BUS,QUAD,U         | 1   |                | E39,E40,E41,E76                 |
| 37                         | 37   |              | 2303182-00        | B2-03 |                                  | 1   |                | E77                             |
| 38                         | 38   |              | 1216988-02        |       | HANDLE,MODULE,HEX TWO EJECTORS   | 1   |                | E70                             |
| 39                         | 39   |              | 9000024-01        |       | EYELET,ROLLED 0,1210DX0.192      | 12  |                |                                 |
| 40                         | 40   |              | 1921312-01        |       | 74F32 OR GATE,QUAD,2-IN          | 1   |                | E34                             |

41 NOTE: I C SPARE LOCATIONS ARE E79,E86,E107,E130 & E138.

|               |              |                |      |      |                 |     |
|---------------|--------------|----------------|------|------|-----------------|-----|
| D I G I T A L | TITLE<br>ICL | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|               |              |                | K    | PL   | M7473-0-D8P     | A   |

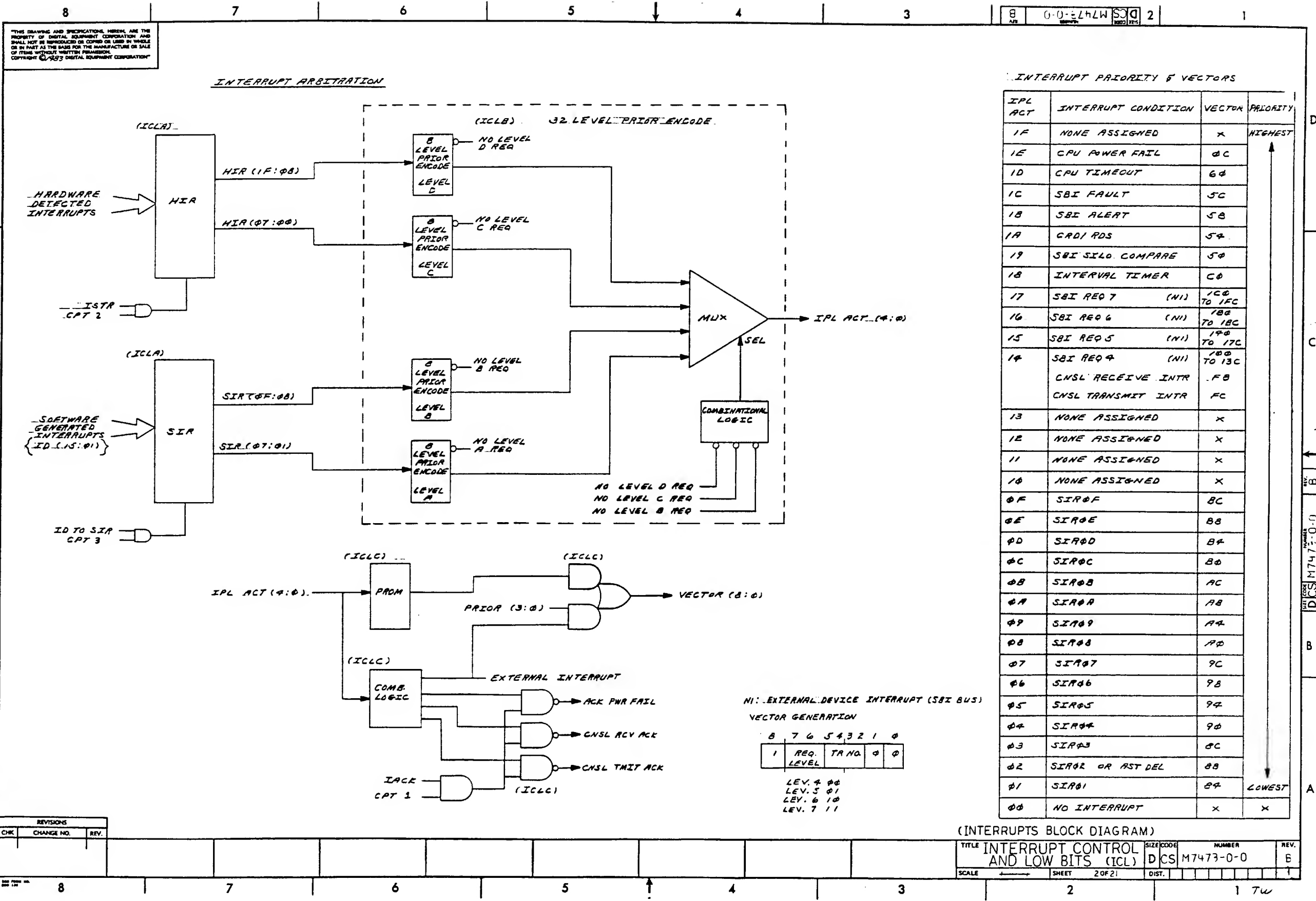
"THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION"

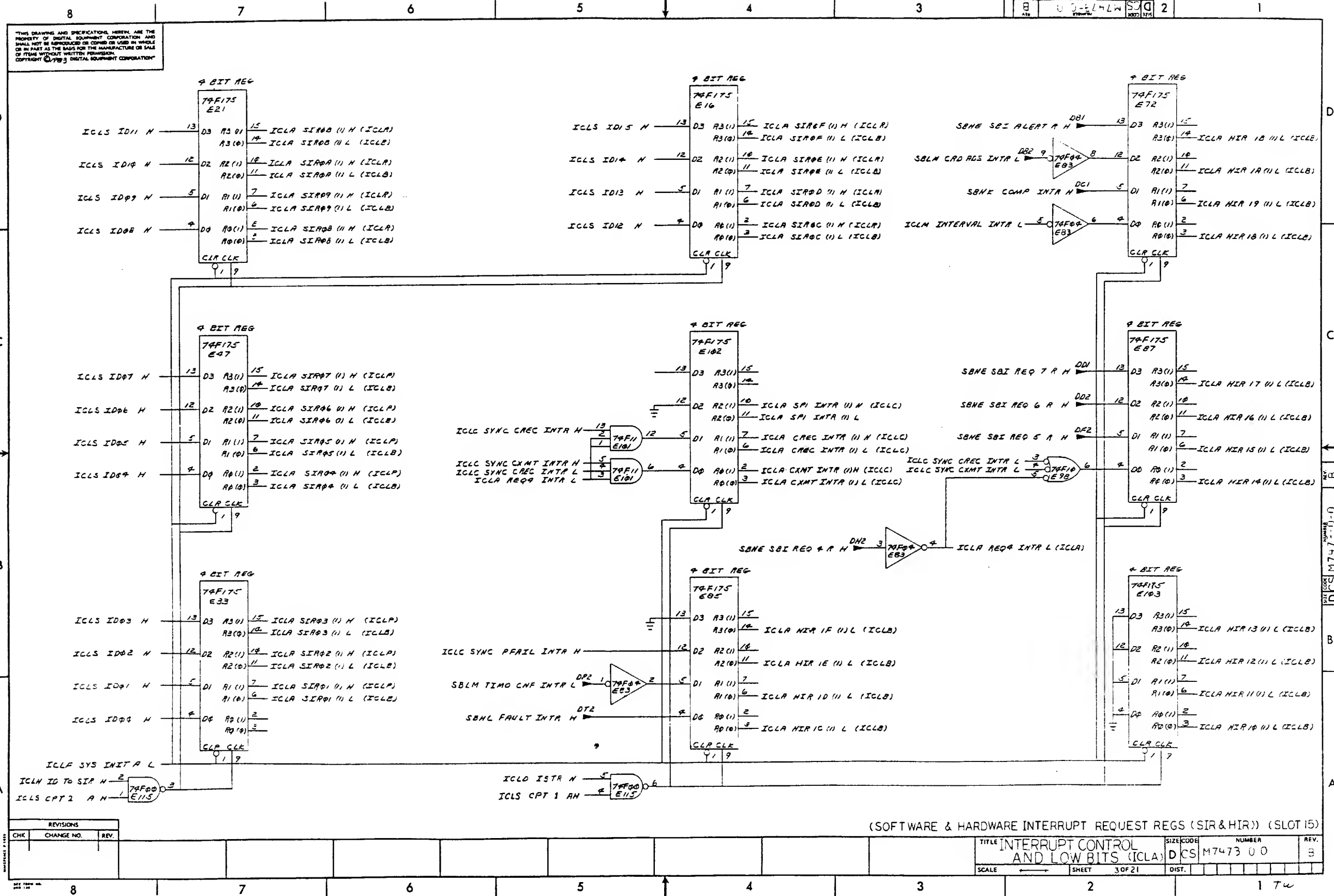
LOW BITS BLOCK DIAGRAM



(REGISTER BLOCK DIAGRAM)

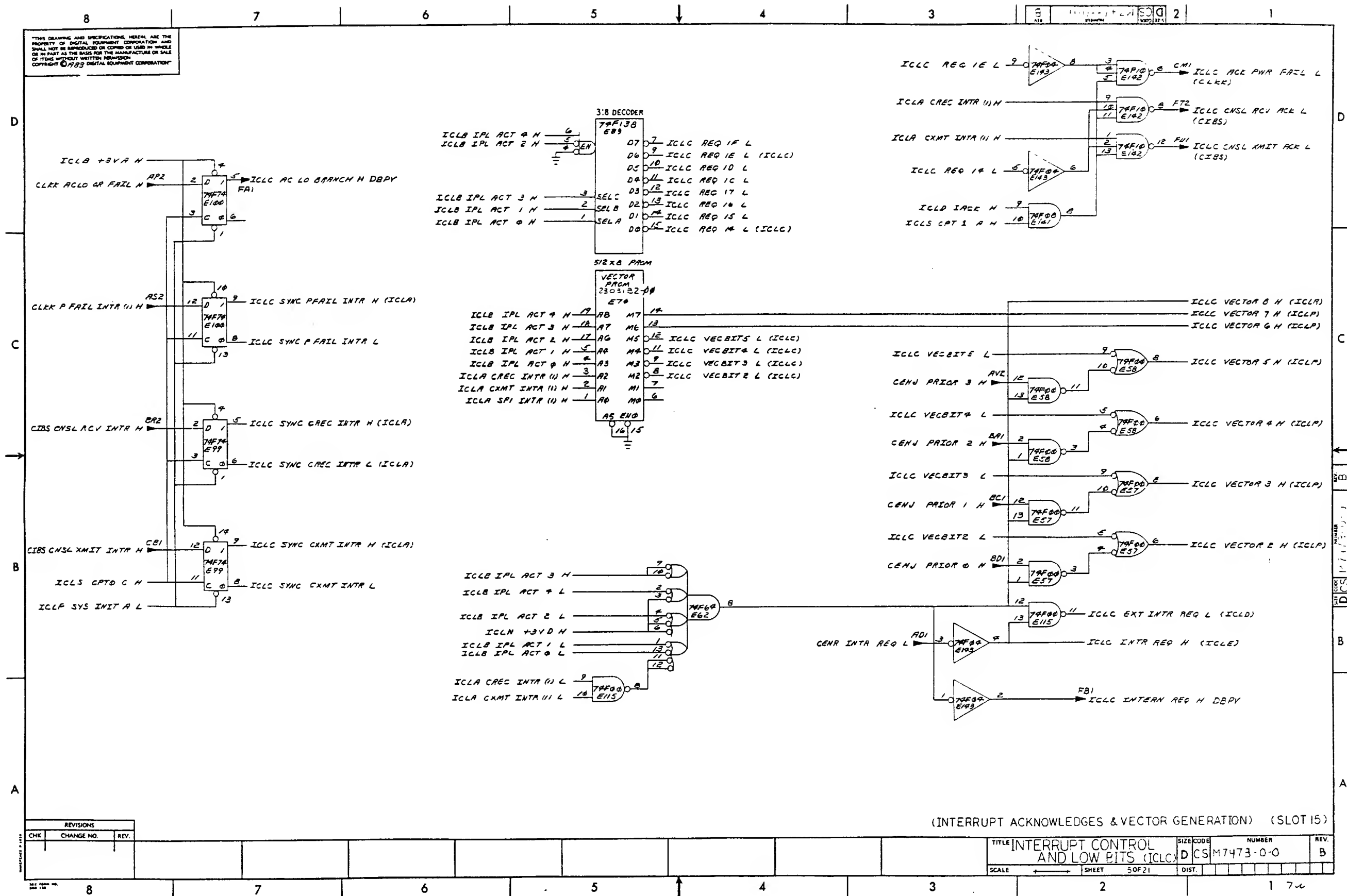
|                    |          |               |                                      |
|--------------------|----------|---------------|--------------------------------------|
| DRM of the drawing | 5-12-77  | FIRST USED ON | digital                              |
| CHK'D              | 5-2-77   | TITLE         | INTERRUPT CONTROL AND LOW BITS (ICL) |
| ENG                | 10-8-77  | SIZE          | D                                    |
| PROJ. ENG.         | 10-11-77 | CODE          | CS                                   |
| PROOF              | 10-11-77 | NUMBER        | M7473-0-0                            |
| NEXT HIGHER ASSY.  |          | REV.          | B                                    |
| SCALE              | 1 OF 21  | DIST.         |                                      |
| SHEET              |          |               |                                      |

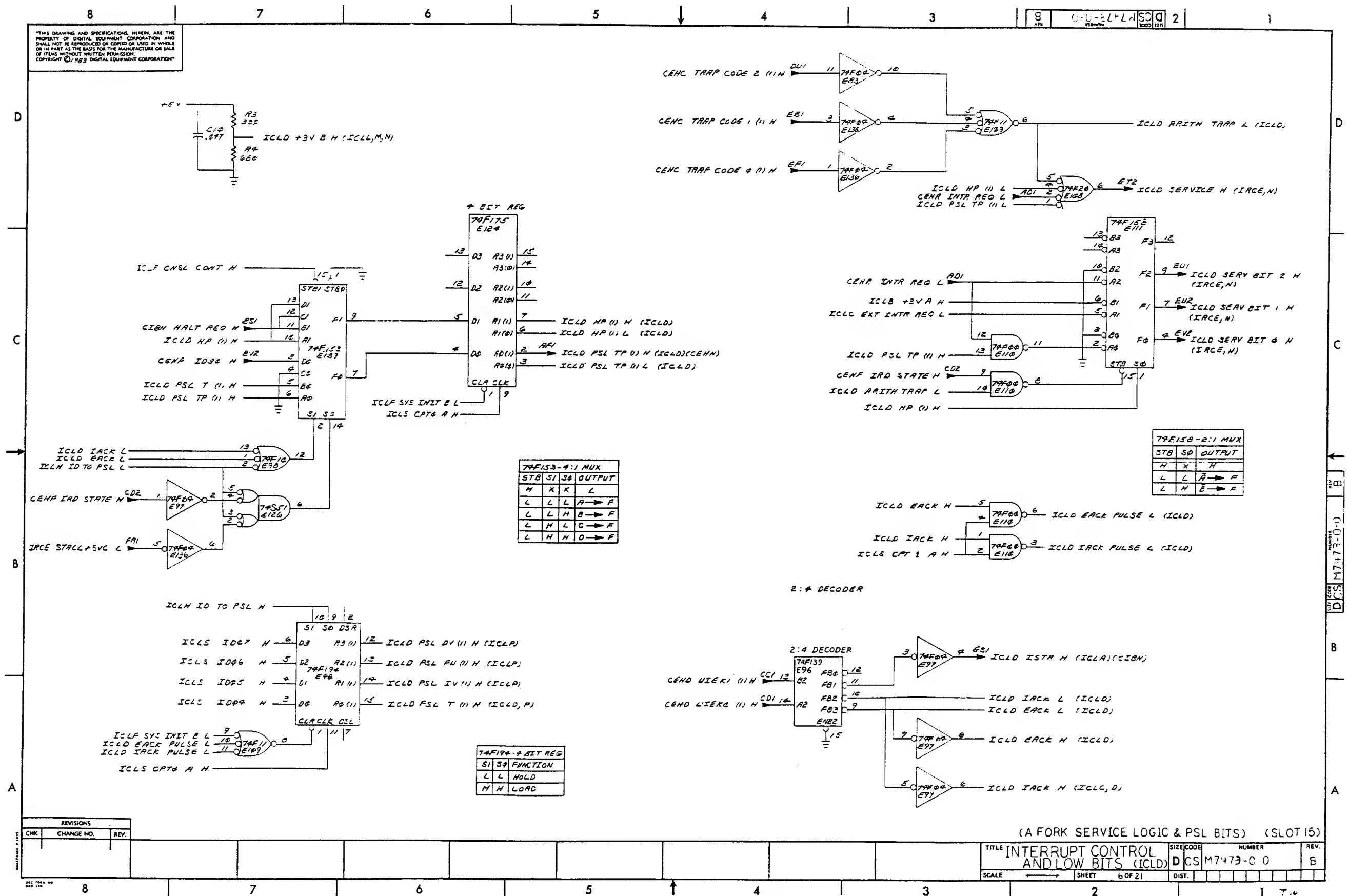




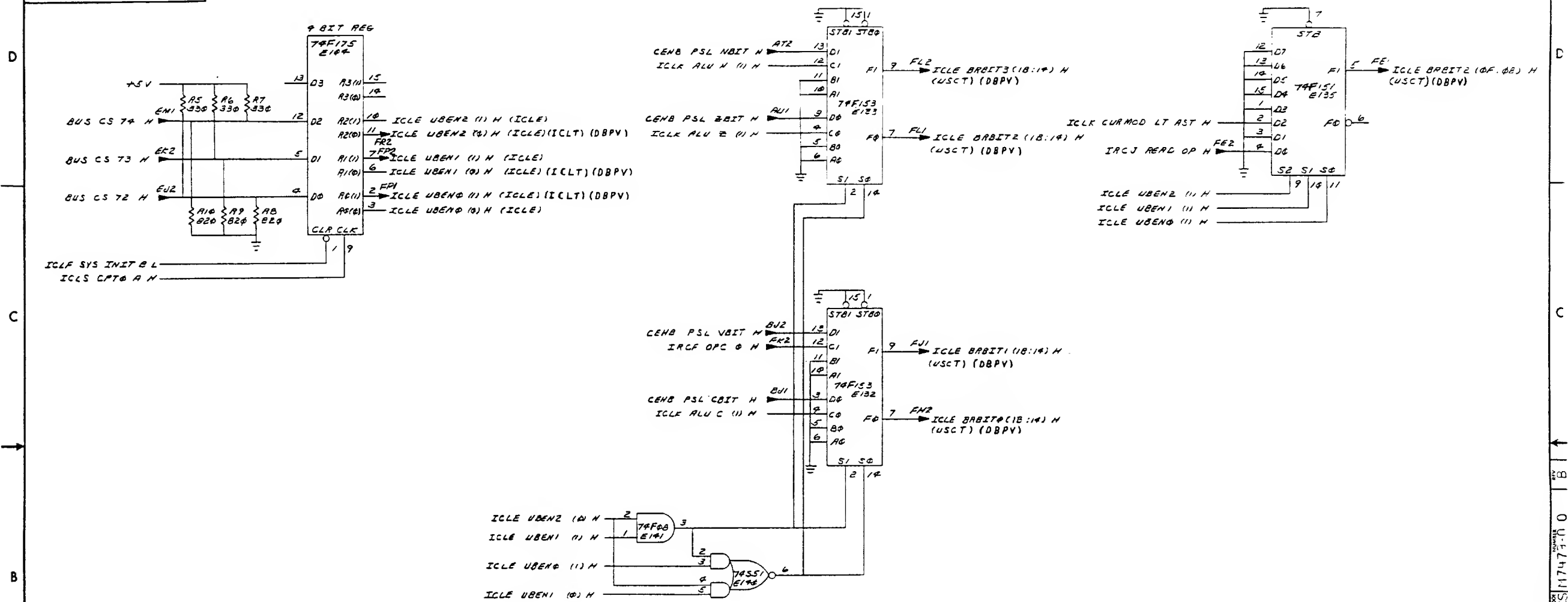








THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION



BEN (18:14) MUXES

| 74F153-4:1 MUX   | BEN SELECTED |
|------------------|--------------|
| STB S1 S0 OUTPUT |              |
| H X X L          | X            |
| L L L A → F      | 19, 18       |
| L L L B → F      | 17, 14       |
| L L L C → F      | 16           |
| L L L D → F      | 1A           |

BEN (0F:00) MUXES

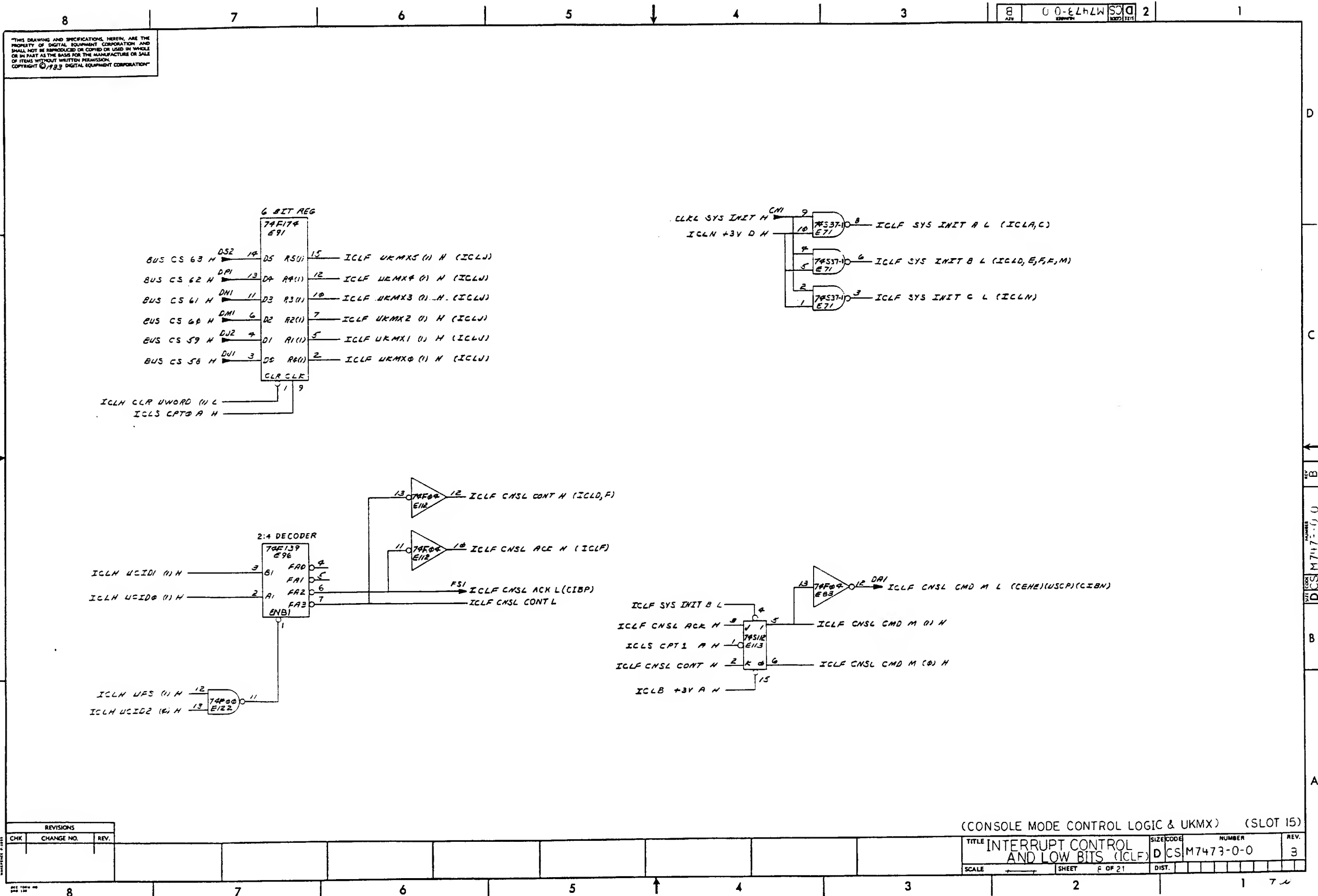
| 74F153-4:1 MUX   | BEN SELECTED |
|------------------|--------------|
| STB S1 S0 OUTPUT |              |
| H X X L          | X            |
| L L L A → F      | 00, 0C       |
| L L L B → F      | 08, 06       |
| L L L C → F      | 0F           |
| L L L D → F      | 0E           |

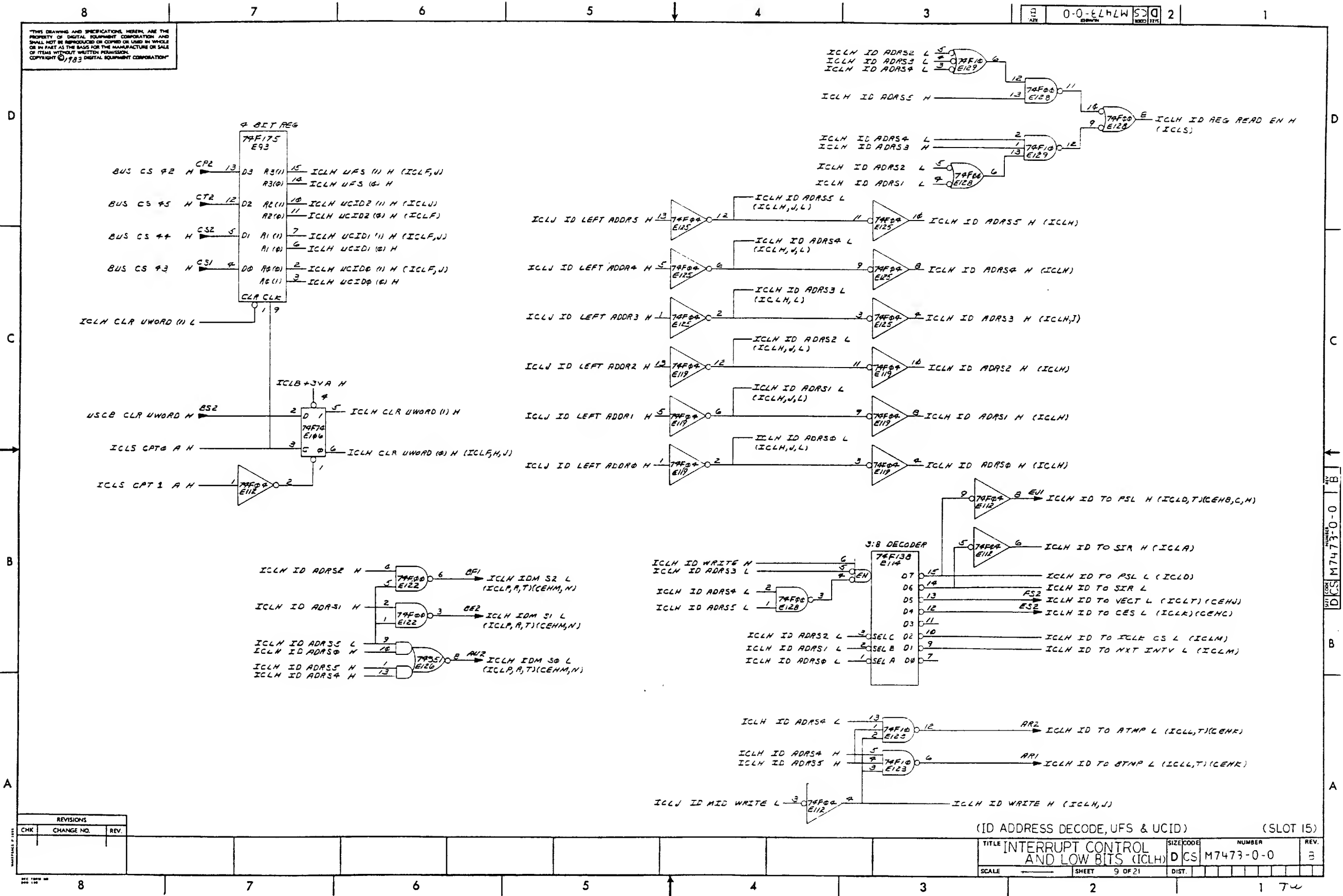
| 74F151-3:1 MUX      | BEN SELECTED |
|---------------------|--------------|
| STB S2 S1 S0 OUTPUT |              |
| H X X X F1 = L      | X            |
| L L L L D0 → F1     | 0B           |
| L L L L D1 → F1     | 09           |
| L L L L D2 → F1     | 0A           |
| L L L L D3 → F1     | 0B           |
| L L L L D4 → F1     | 0C           |
| L L L L D5 → F1     | 0D           |
| L L L L D6 → F1     | 0E           |
| L L L L D7 → F1     | 0F           |

| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |

(UBEN & UBRANCH MULTIPLEXORS) (SLOT 15)

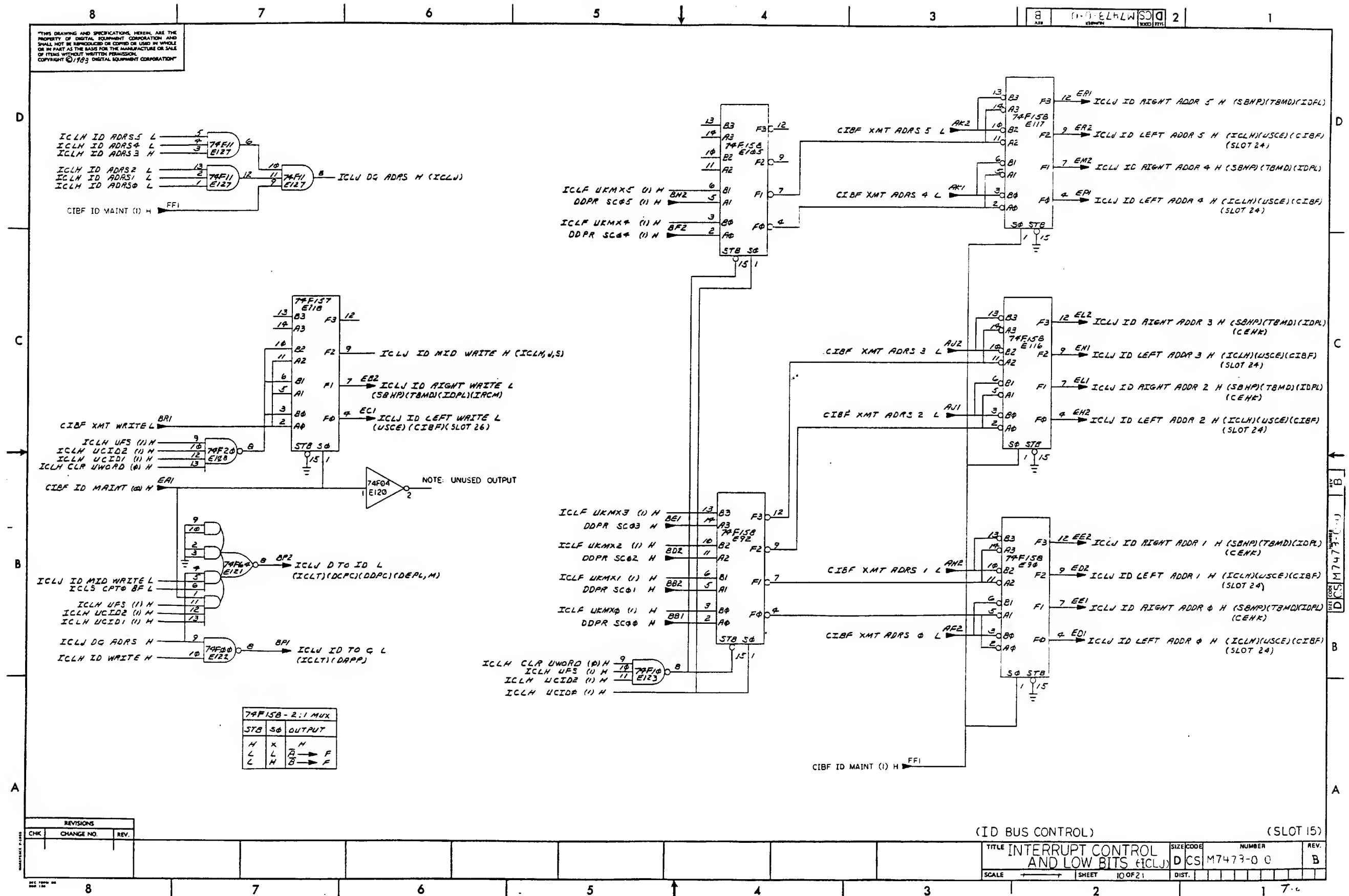
|       |                                       |           |         |        |           |      |   |
|-------|---------------------------------------|-----------|---------|--------|-----------|------|---|
| TITLE | INTERRUPT CONTROL AND LOW BITS (ICLE) | SIZE CODE | D CS    | NUMBER | M7473-0-0 | REV. | B |
| SCALE |                                       | SHEET     | 7 OF 21 | DIST.  |           |      |   |

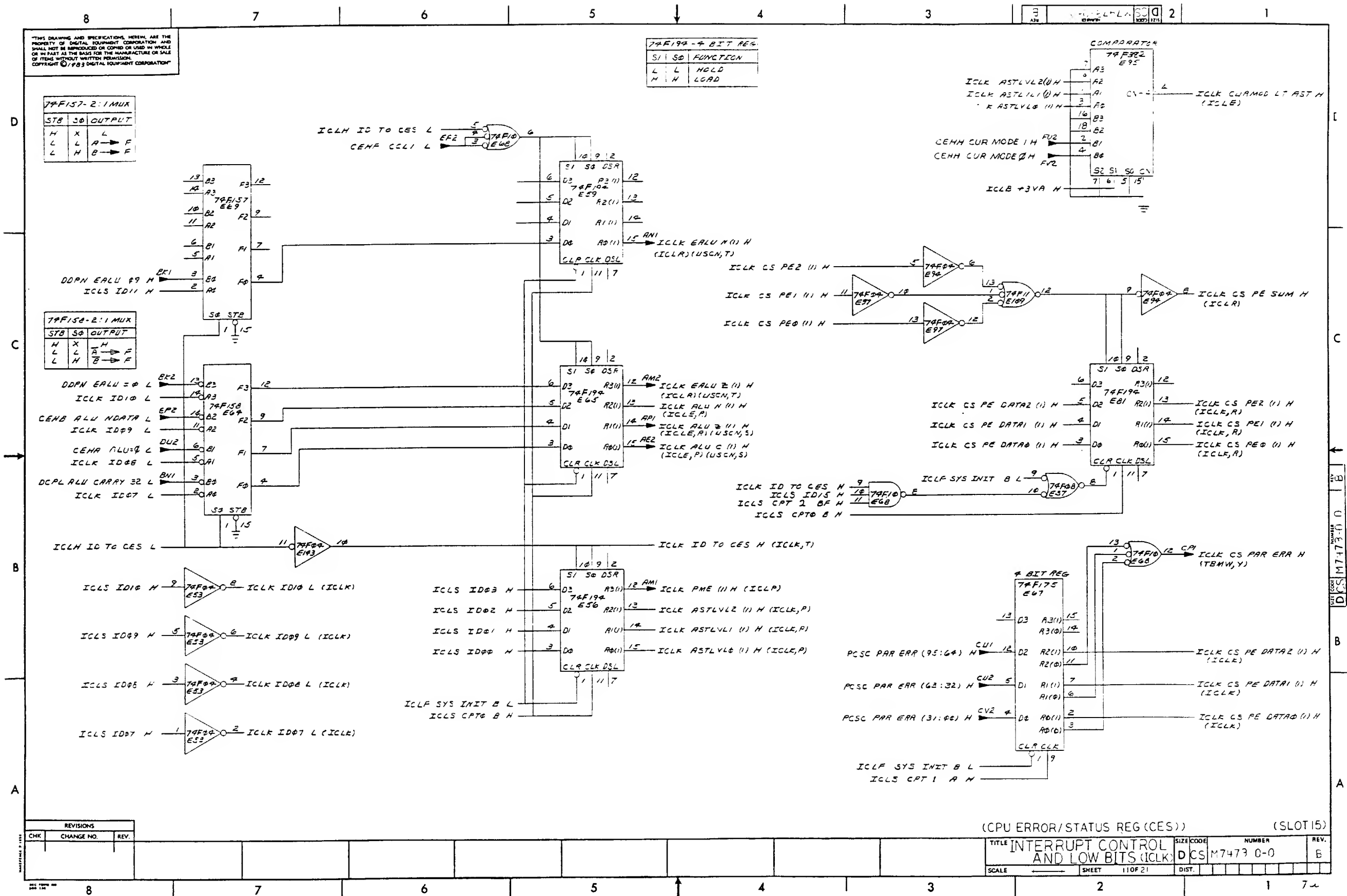


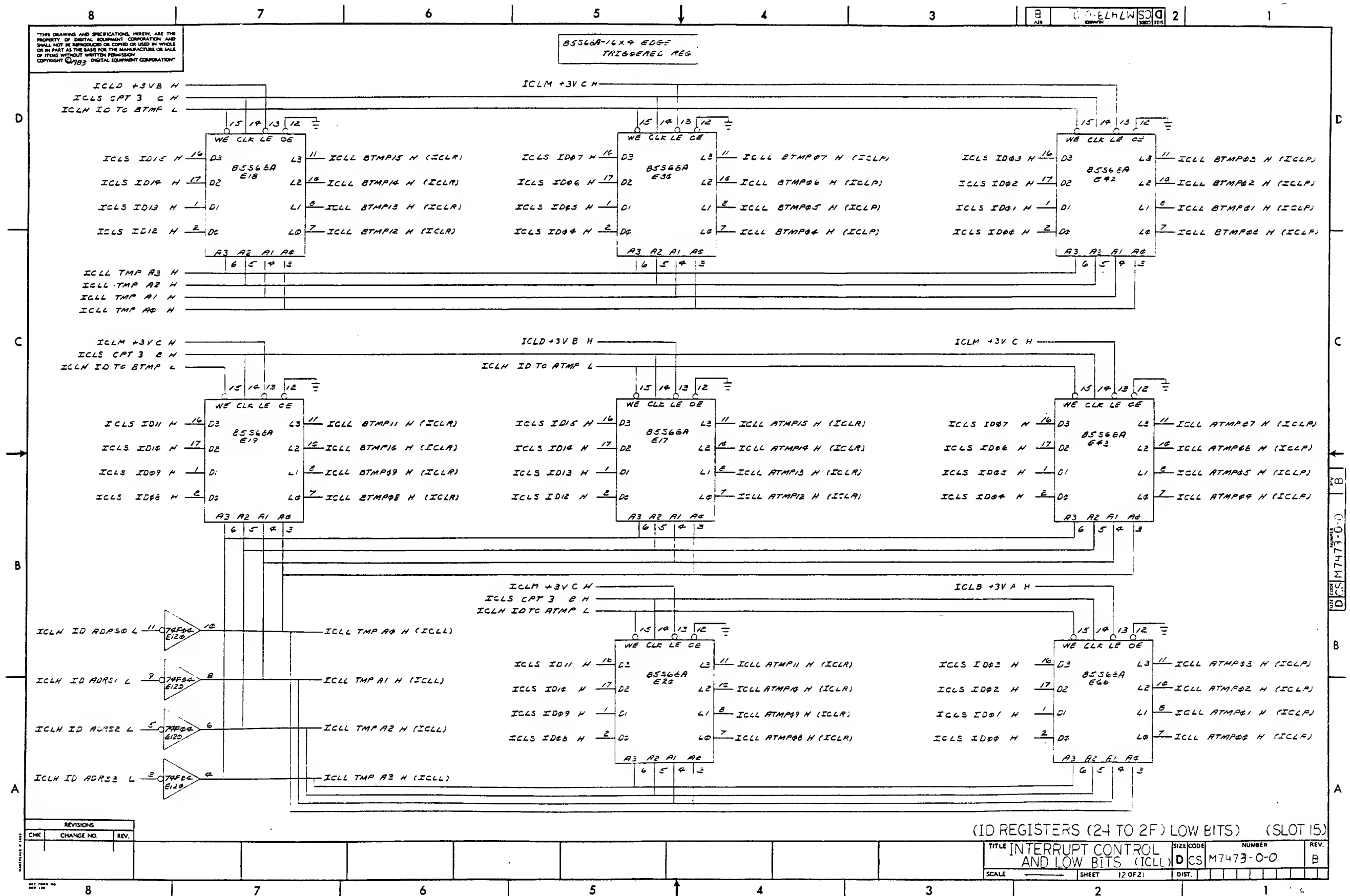


| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |

|                                       |  |       |      |           |       |
|---------------------------------------|--|-------|------|-----------|-------|
| TITLE                                 |  | SIZE  | CODE | NUMBER    | REV.  |
| INTERRUPT CONTROL AND LOW BITS (ICLH) |  | D     | CS   | M7473-0-0 | 3     |
| SCALE                                 |  | SHEET |      | 9 OF 21   | DIST. |



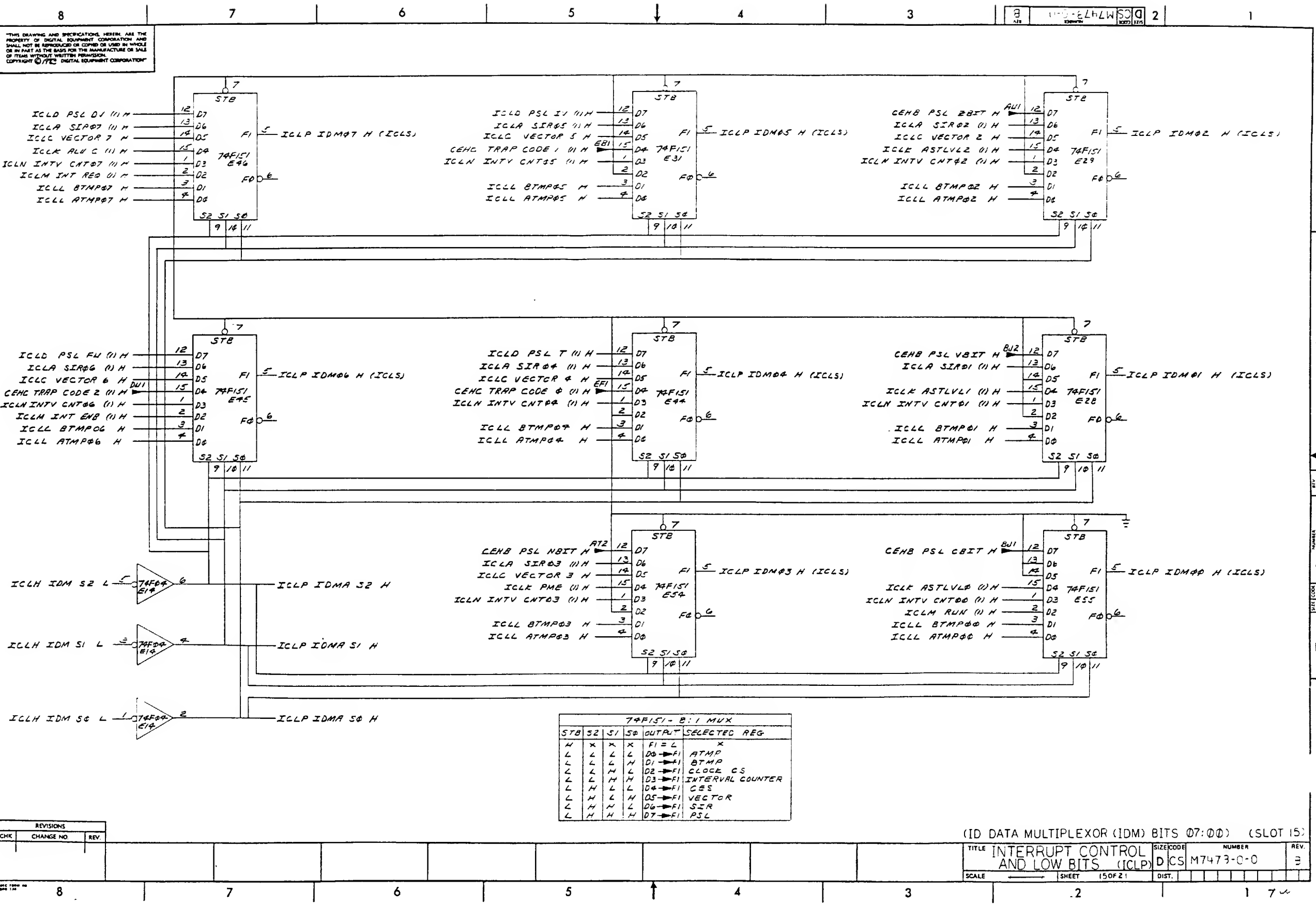








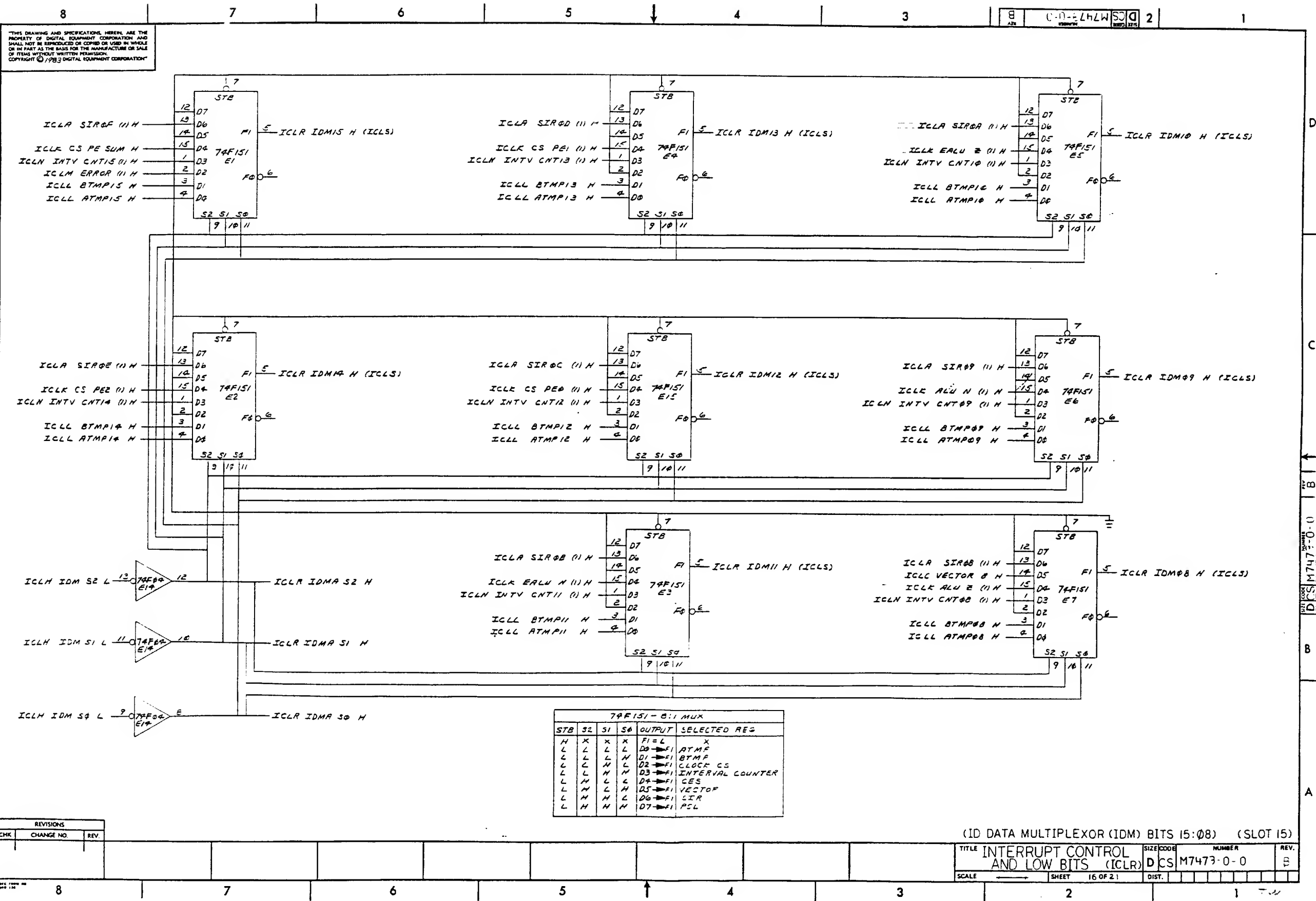


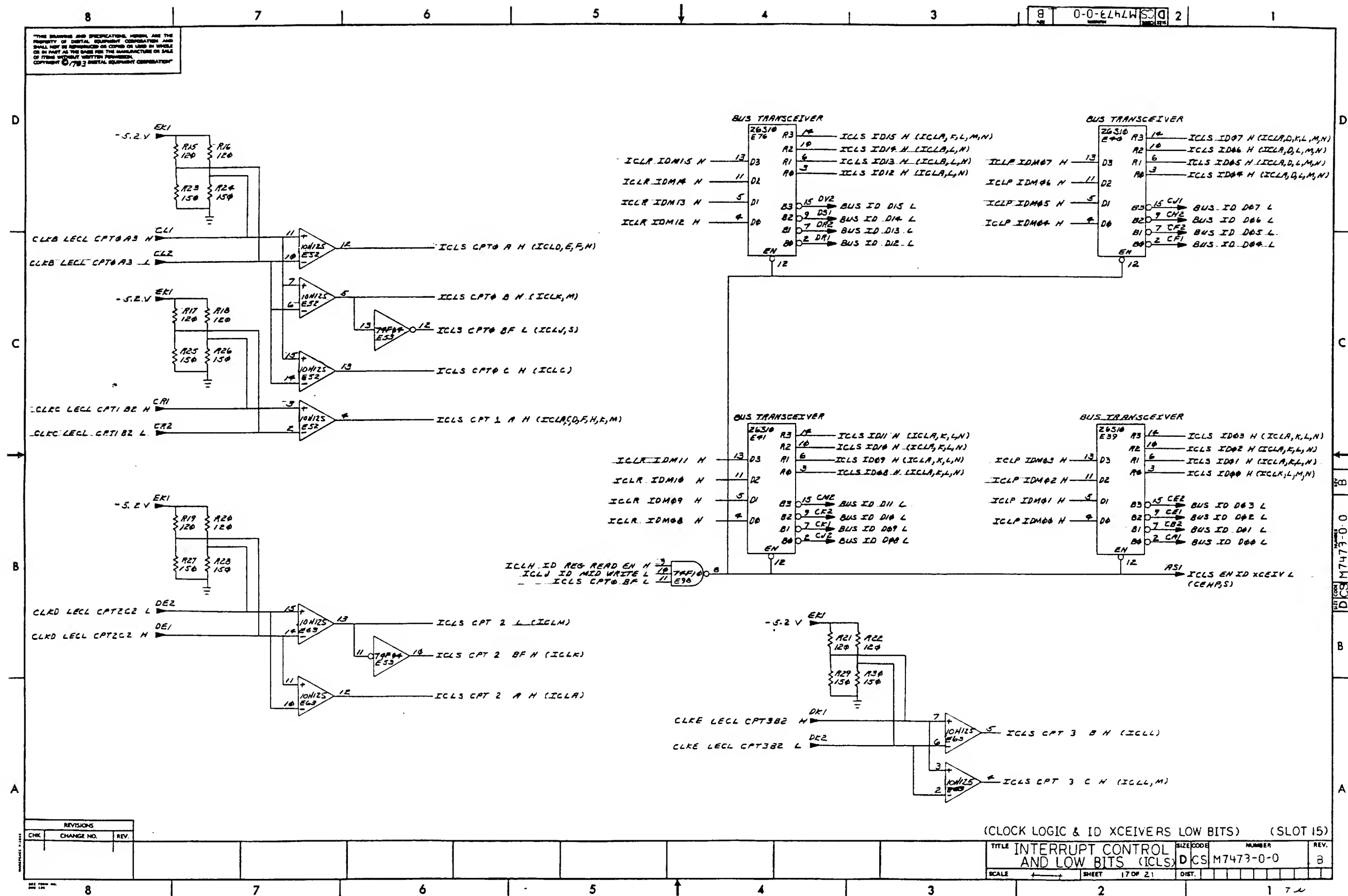


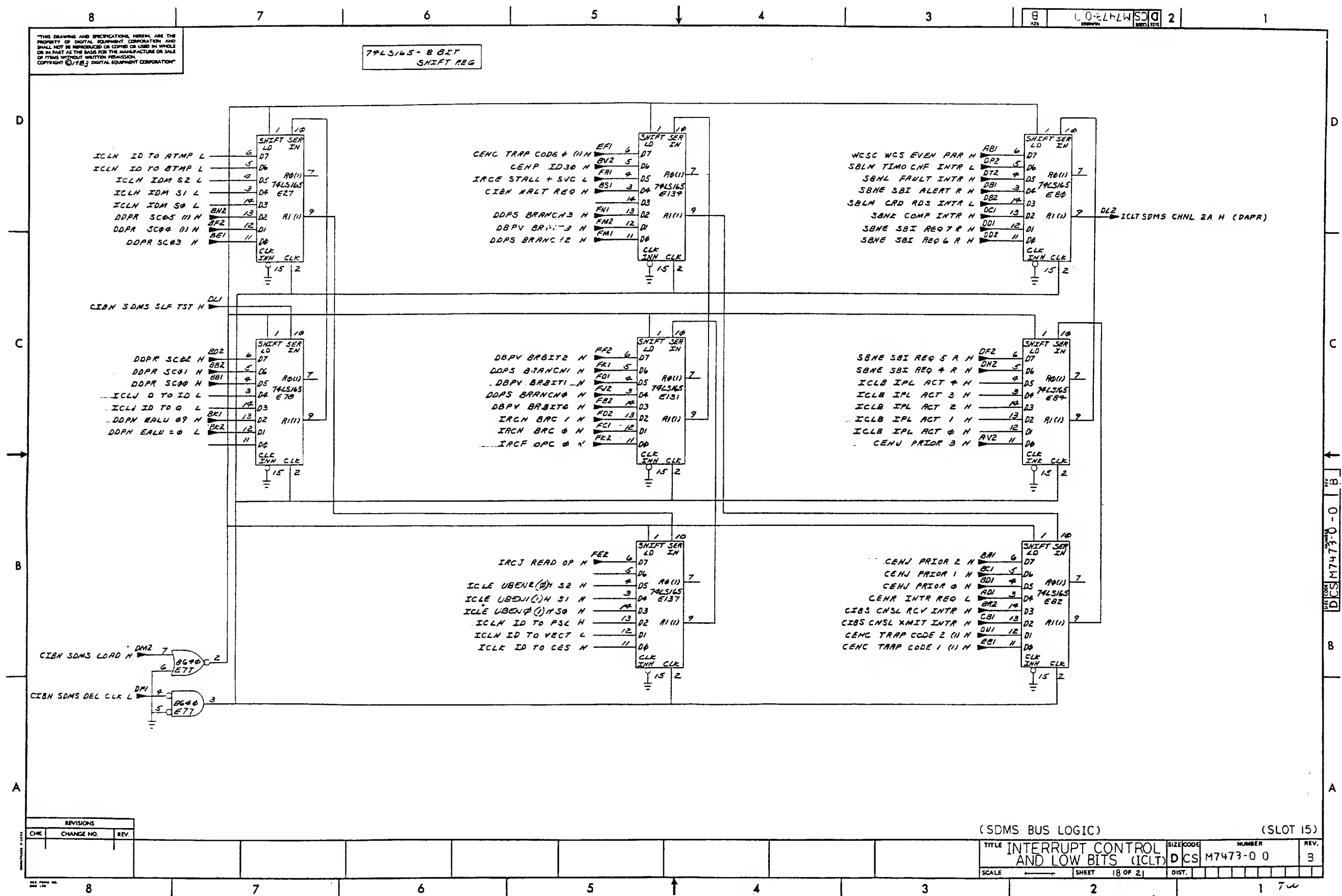
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION

(ID DATA MULTIPLEXOR (IDM) BITS 07:00) (SLOT 15)

|       |  |   |           |     |          |           |       |   |
|-------|--|---|-----------|-----|----------|-----------|-------|---|
| TITLE |  | INTERERRUPT CONTROL AND LOW BITS (ICLP) | SIZE CODE | DCS | NUMBER   | M7473-C-0 | REV.  | 3 |
| SCALE |  |   | SHEET     |     | 15 OF 21 |           | DIST. |   |







THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION.

VECTOR PROM

| D   | VECBIT (7,6)H           |   |   |   |   |   |   |   | VECBIT (5,2) L          |  |  |  |  |  |  |  | X                       |  |  |  |  |  |  |  |    |
|-----|-------------------------|---|---|---|---|---|---|---|-------------------------|--|--|--|--|--|--|--|-------------------------|--|--|--|--|--|--|--|----|
|     | PROM ADDR               |   |   |   |   |   |   |   | IPL ACT                 |  |  |  |  |  |  |  | PROM DATA               |  |  |  |  |  |  |  |    |
|     | M7 M6 M5 M4 M3 M2 M1 M0 |   |   |   |   |   |   |   | M7 M6 M5 M4 M3 M2 M1 M0 |  |  |  |  |  |  |  | M7 M6 M5 M4 M3 M2 M1 M0 |  |  |  |  |  |  |  |    |
| 000 | 00                      | L | L | H | H | H | H | L | L                       |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  | X  |
| 001 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 002 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 003 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 004 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 005 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 006 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 007 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 008 | 01                      | H | L | H | H | H | L | L | L                       |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  | 04 |
| 009 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 00A |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 00B |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 00C |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 00D |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 00E |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 00F |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 010 | 02                      | H | L | H | H | L | H | L | L                       |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  | 08 |
| 011 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 012 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 013 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 014 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 015 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 016 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 017 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 018 | 03                      | H | L | H | H | L | L | L | L                       |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  | 0C |
| 019 |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 01A |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 01B |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 01C |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 01E |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 01F |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |
| 020 | 00                      | L | L | L | L | L | L | L | L                       |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  | 00 |
| 02F |                         |   |   |   |   |   |   |   |                         |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |    |

| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |

(VECTOR PROM TRUTH TABLE)

|       |                                      |           |        |      |
|-------|--------------------------------------|-----------|--------|------|
| TITLE | INTERRUPT CONTROL AND LOW BITS (ICL) | SIZE/CODE | NUMBER | REV. |
| SCALE | SHEET 19 OF 21                       | DIST.     |        |      |





THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION

DECODING LOGIC DESCRIPTION

(ICLD) HALT PENDING & TRACE TRAP PENDING

| FUNCTION   | HP<br>LOAD<br>COND | TP<br>LOAD<br>COND |
|--|--------------------|--------------------|
| ID TO PSL  | HP                 | ID39               |
| IACK   | HALT<br>REQ        | #                  |
| EACK   | HALT<br>REQ        | #                  |
| CNSL CONT  | #                  | PSL TP             |
| DO NEXT INSTRUCTION<br>(IPD STATE = STALL * SVC) | HALT<br>REQ        | PSL T              |

(ICLD) A FORK PRIORITY

| CONDITION                   | SERV<br>BIT<br>CODE | PPRIOR       |
|-----------------------------|---------------------|--------------|
| ARITHMETIC TRAP             | 7                   | ↑<br>HIGHEST |
| HALT PENDING (HP)           | 5                   |              |
| INTERRUPT REQ*EXT.DEV (NI)  | 6                   |              |
| INTERRUPT REQ*INT.COND (NI) | 4                   |              |
| TRACE TRAP PENDING (TP)     | 1                   | ↓<br>LOWEST  |
| IDUF STALL                  | #                   |              |
| IDUF ERROR                  | #                   |              |
| NEXT INSTRUCTION            | #                   |              |

NI - MUTUALLY EXCLUSIVE

(ICLF)  
(ICLN)  
(ICLJ) UNWORD CONSOL & IO BUS CONTROL

| UFS | UCID | FUNCTIONS        |                    |
|-----|------|------------------|--------------------|
| #   | X    | NO-OP            |                    |
| 1   | #    | NO-OP            |                    |
| 1   | 1    | UNUSED           |                    |
| 1   | 2    | CNSL ACK         |                    |
| 1   | 3    | CNSL CONT        |                    |
| 1   | 4    | ID DATA ← ID REG | ID ADDRS ← SC(S:#) |
| 1   | 5    |                  | ID ADDRS ← UKMX    |
| 1   | 6    | ID REG ← ID DATA | ID ADDRS ← SC(S:#) |
| 1   | 7    |                  | ID ADDRS ← UKMX    |

(ICLN) IO ADDRESS DECODE

| IO<br>ADDRS | IO REGISTER         | IO REG<br>PEAD<br>EN N | IDM(S2:S#) L |    |    |
|-------------|---------------------|------------------------|--------------|----|----|
|             |                     |                        | S2           | S1 | S# |
| #B          | DD (IO MAINT. ONLY) | L                      | X            | X  | X  |
| #9          | NXT INTV            | L                      | X            | X  | X  |
| #A          | CLOCK CS            | H                      | H            | L  | H  |
| #B          | INTV CNT            | H                      | H            | L  | L  |
| #C          | CES                 | H                      | L            | H  | H  |
| #D          | VECT                | H                      | L            | H  | L  |
| #E          | SIR                 | H                      | L            | L  | H  |
| #F          | PSL                 | H                      | L            | L  | L  |
| 24-2F       | ATMP                | H                      | H            | H  | H  |
| 3#-3F       | BTMP                | H                      | H            | H  | L  |

(ICLD) UIEK DECODE

| UIEK | FUNCTION |
|------|----------|
| #    | NO-OP    |
| 1    | ISTR     |
| 2    | IACK     |
| 3    | EACK     |

(DECODING LOGIC DESCRIPTION)

[illegible]



AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A1 OF A4

| LINE                      | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                    | QTY | PER VARIATION | REFERENCE DESIGNATOR            |
|---------------------------|------|--------------|-------------|---------|--------------------------------|-----|---------------|---------------------------------|
| VARIATION REVISION LEVEL: |      |              |             |         |                                | 00  |               |                                 |
| 1                         | 1    |              | 5016101-01  |         | ETCH CIRCUIT BOARD             | 1   |               |                                 |
| 2                         | 2    |              | 1000021-00  |         | 220.0 MMF 100V 5%200PPM MICA   | 2   |               | C6,C8                           |
| 3                         | 3    |              | 1000024-00  |         | 470.0 MMF 100V 5%200PPM MICA   | 2   |               | C3,C4                           |
| 4                         | 4    |              | 1001610-00  |         | .01 MFD 50V +80-20% Z5U CER    | 44  |               | C21,C24,C25,C27-C67             |
| 5                         | 5    |              | 1001776-00  |         | 1 MFD 35V 10% S.TANT           | 1   |               | C5                              |
| 6                         | 6    |              | 1004813-00  |         | 10 MFD 20V 10% S.TANT          | 1   |               | C2                              |
| 7                         | 7    |              | 1009964-00  |         | .68 MFD 35V 10% S.TANT         | 3   |               | C1,C7,C10                       |
| 8                         | 8    |              | 1110864-00  |         | LED 2MCD@10MA                  | 8   |               | D1-D4,D11-D14                   |
| 9                         | 9    |              | 1011740-00  |         | 5600.0 MMF 50V 10% CER         | 1   |               | C11                             |
| 10                        | 10   |              | 1012784-00  |         | .047 MFD 50V +80-20% CER       | 13  |               | C9,C12-C20,C22,C23,C26          |
| 11                        | 11   |              | 1017472-00  |         | 10 MFD 35V +50-10% AL EL       | 6   |               | C71-C76                         |
| 12                        | 12   |              | 1100114-00  |         | PIV= 25 IO=135 MA              | 6   |               | D5-D10                          |
| 13                        | 13   |              | 1211164-07  |         | SW,DIP 2POS/1PST 5VDC100MA F   | 15  |               | S1-S15                          |
| 14                        | 14   |              | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS | 1   |               |                                 |
| 15                        | 15   |              | 1300271-00  |         | 220.0 .25 W 5.0 % CF           | 2   |               | R99,R600                        |
| 16                        | 16   |              | 1300295-00  |         | 330.0 .25 W 5.0 % CF           | 8   |               | R83,R86,R89,R92,R484,R487,R490, |
| 17                        | 17   |              | 1300365-00  |         | 1.0 K .25 W 5.0 % CF           | 28  | CONT          | R493                            |
|                           |      |              |             |         |                                |     | CONT          | R94,R97,R98,R100,R103,R108,     |
|                           |      |              |             |         |                                |     | CONT          | R124-R128,R196,R219,R224-R227,  |
|                           |      |              |             |         |                                |     | CONT          | R229-R232,R312,R315,R318,R349,  |
|                           |      |              |             |         |                                |     | CONT          | R351,R354,R900                  |
| 18                        | 18   |              | 1300391-00  |         | 1.50 K .25 W 5.0 % CF          | 1   |               | R195                            |
| 19                        | 19   |              | 1300439-00  |         | 3.30 K .25 W 5.0 % CF          | 1   |               | R209                            |
| 20                        | 20   |              | 1300479-00  |         | 10.0 K .25 W 5.0 % CF          | 2   |               | R104,R107                       |
| 21                        | 21   |              | 1301310-00  |         | 270.0 K .25 W 5.0 % CF         | 4   |               | R199,R203,R210,R214             |
| 22                        | 22   |              | 1301423-00  |         | 6.80 K .25 W 5.0 % CF          | 1   |               | R208                            |
| 23                        | 23   |              | 1301972-00  |         | 270.0 .25 W 5.0 % CF           | 2   |               | R228,R233                       |
| 24                        | 24   |              | 1302091-00  |         | 330.0 K .25 W 5.0 % CF         | 1   |               | R198                            |
| 25                        | 25   |              | 1302092-00  |         | 220.0 K .25 W 5.0 % CF         | 4   |               | R201,R212,R216,R364             |
| 26                        | 26   |              | 1302394-00  |         | 30.0 K .25 W 5.0 % CF          | 6   |               | R95,R96,R101,R102,R105,R106     |

| REVISION HISTORY |            |     | BASIC PART NO: M7474    |    | DRN:             | SHEILA MANSOR | DATE: 06-JUL-83      | D I G I T A L           |      |             |     |  |
|------------------|------------|-----|-------------------------|----|------------------|---------------|----------------------|-------------------------|------|-------------|-----|--|
| ENG              | ECO NUMBER | REV | SECTION A OF A          |    | CHK'D:           | E.T.GERRY     | DATE: 7-JUL-83       | TITLE PARTS LIST        |      |             |     |  |
| ---              | INITIAL    | A   | SECTION VARIATION INDEX |    | DES.ENG:         | M.STEFANSKI   | DATE: 20-SEP-83      | DOCUMENT NUMBER         |      |             |     |  |
|                  |            |     | (A)                     | 00 | RESP.ENG.:       | M.STEFANSKI   | DATE: 20-SEP-83      | SIZE                    | CODE | NUMBER      | REV |  |
|                  |            |     | (B)                     |    | MFG.ENG.:        | M.KRYSAK      | DATE: 20-SEP-83      | K                       | PL   | M7474-0-D8P | A   |  |
|                  |            |     | (C)                     |    | ASSEMBLY NUMBER: |               | TOP DOCUMENT NUMBER: | FILE NAME:              |      | EDIT #      |     |  |
|                  |            |     | (D)                     |    | E-UA-M7474-0-0   |               | 8-DD-M7474-0-0       | Z3950A.PLS              |      | 19          |     |  |
|                  |            |     | (E)                     |    |                  |               |                      | RELEASE DATE: 14-OCT-83 |      |             |     |  |
|                  |            |     | (F)                     |    |                  |               |                      |                         |      |             |     |  |
|                  |            |     | (G)                     |    |                  |               |                      |                         |      |             |     |  |
|                  |            |     | (H)                     |    |                  |               |                      |                         |      |             |     |  |
|                  |            |     | (I)                     |    |                  |               |                      |                         |      |             |     |  |
|                  |            |     | (J)                     |    |                  |               |                      |                         |      |             |     |  |
|                  |            |     | (K)                     |    |                  |               |                      |                         |      |             |     |  |
|                  |            |     | (L)                     |    |                  |               |                      |                         |      |             |     |  |
|                  |            |     | (M)                     |    |                  |               |                      |                         |      |             |     |  |
|                  |            |     | (N)                     |    |                  |               |                      |                         |      |             |     |  |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."

| LINE ITEM                 |    | TOP DOCUMENT   | PART NUMBER | MIN<br>REV | DESCRIPTION           | QTY<br>00 | PER VARIATION | REFERENCE DESIGNATOR  |
|---------------------------|----|----------------|-------------|------------|-----------------------|-----------|---------------|---|
| VARIATION REVISION LEVEL: |    |                |             |            |                       |           |               |   |
| 27                        | 27 |                | 1302874-00  | 147.0      | .25 W 1.0 % RN55D-F10 | 4         |               | R82,R84,R87,R90   |
| 28                        | 28 | SEE NOTE 66-68 | 1302956-00  | 196.0      | .25 W 1.0 % RN55D-F10 | 179       |               | R2,R4,R6,R8,R10,R12,R14,R16,R18,<br>CONT R20,R22,R24,R26,R28,R30,R32,R34,<br>CONT R36,R38,R40,R42,R44,R46,R48,R50,<br>CONT R52,R54,R56,R58,R60,R62,R64,R66,<br>CONT R68,R70,R72,R74,R76,R78,R80,<br>CONT R110,R130,R134,R136,R138,R159,<br>CONT R161,R163,R165,R175,R177,R221,<br>CONT R223,R235,R237,R239,R241,R243,<br>CONT R245,R247,R249,R251,R253,R255,<br>CONT R257,R301,R303,R305,R307,R309,<br>CONT R311,R313,R317,R319,R321,R323,<br>CONT R325,R326,R329,R331,R335,R336,<br>CONT R338,R339,R341,R343,R344,R347,<br>CONT R352,R361,R363,R366,R367,<br>CONT R369-R371,R373,R376,R378,R379,<br>CONT R381,R382,R384,R386,R388,R390,<br>CONT R393,R394,R396,R399,R401,R403,<br>CONT R405,R407,R409,R411,R413,R415,<br>CONT R417,R419,R420,R425,R427,R428,<br>CONT R433,R435,R436,R444,R448,R450,<br>CONT R452,R454,R457,R459,R472-R474,<br>CONT R477,R478,R481,R483,R486,R489,<br>CONT R492,R603,R605,R606,R610,R611,<br>CONT R613,R614 |
| 29                        | 29 | SEE NOTE 69-71 | 1302957-00  | 121.0      | .25 W 1.0 % RN55D-F10 | 185       |               | R1,R3,R5,R7,R9,R11,R13,R15,R17,<br>CONT R19,R21,R23,R25,R27,R29,R31,R33,<br>CONT R35,R37,R39,R41,R43,R45,R47,R49,<br>CONT R51,R53,R55,R57,R59,R61,R63,R65,<br>CONT R67,R69,R71,R73,R75,R77,R79,R81,<br>CONT R85,R88,R91,R109,R129,R133,R135,<br>CONT R137,R154-R158,R160,R162,R164,<br>CONT R174,R176,R220,R222,R234,R236,<br>CONT R238,R240,R242,R244,R246,R248,<br>CONT R250,R252,R254,R256,R300,R302,<br>CONT R304,R306,R308,R310,R314,R316,<br>CONT R320,R322,R324,R327,R328,R330,<br>CONT R332-R334,R337,R340,R342,R345,<br>CONT R346,R350,R355,R357,R360,R362,<br>CONT R365,R368,R372,R374,R375,R377,<br>CONT R380,R383,R385,R387,R389,R391,<br>CONT R392,R397,R398,R400,R402,R404,<br>CONT R406,R408,R410,R412,R414,R416,<br>CONT R418,R424,R426,R432,R434,<br>CONT R439-R443,R445,R446,R449,R451,<br>CONT R453,R455,R456,R458,R470,R471,<br>CONT R475,R476,R479,R480,R482,R485,<br>CONT R488,R491,R601,R602,R604,                   |

|               |  |       |                |      |      |                 |     |
|---------------|--|-------|----------------|------|------|-----------------|-----|
| D I G I T A L |  | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|               |  | CLOCK |                | K    | PL   | M7474-0-D8P     | A   |

| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                      | QTY | PER VARIATION | REFERENCE DESIGNATOR             |
|------|------|--------------|-------------|---------|----------------------------------|-----|---------------|----------------------------------|
|      |      |              |             |         |                                  |     |               |                                  |
|      |      |              |             |         | VARIATION REVISION LEVEL:        | 00  |               |                                  |
| 30   | 30   |              | 1309595-00  |         | 1.0 M .25 W 5.0 % CF             | 4   | CONT          | R607-R609                        |
| 31   | 31   |              | 1310867-00  |         | 680.0 K .25 W 5.0 % CF           | 1   |               | R202,R206,R213,R217              |
| 32   | 32   |              | 1312930-00  |         | 5.10 K .25 W 5.0 % CF            | 6   |               | R197                             |
| 33   | 33   |              | 1510959-00  |         | 2N 3725 NPN 3.5WC SI 50 60 P     | 38  |               | R194,R200,R204,R207,R211,R215    |
| 34   | 34   |              | 1511686-00  |         | DEC5433 FET N 350MW 10 25 1A     | 16  |               | Q1-Q38                           |
| 35   | 35   |              | 1910436-00  |         | DEC 74123 ONE SHOT-DUAL,RETRIG   | 3   |               | Q39-Q54                          |
| 36   | 36   |              | 1921314-01  |         | 74F74 FF-D,DUAL,POS.,EDGE        | 2   |               | E5,E6,E10                        |
| 37   | 37   |              | 1910645-00  |         | 75452 DRIVER,PERIPH,DUAL,        | 1   |               | E9,E11                           |
| 38   | 38   |              | 1911324-00  |         | 7414 INVERTER,HEX 1IN SCH        | 1   |               | E3                               |
| 39   | 39   |              | 1911469-00  |         | DEC 8640 RECEIVER,8US,QUAD,U     | 1   |               | E7                               |
| 40   | 40   |              | 1912108-01  |         | LM 339ANVOLT. CMPRTR,QUAD        | 1   |               | E22                              |
| 41   | 41   |              | 1912746-00  |         | DEC 74S37 NAND GATE-QUAD 2IN     | 2   |               | E8                               |
| 42   | 42   |              | 1912811-00  |         | LS21 AND GATE-DUAL 4IN,PO        | 1   |               | E21,E24                          |
| 43   | 43   |              | 1912838-00  |         | LS132 NAND GATE-QUAD 2IN P       | 1   |               | E23                              |
| 44   | 44   |              | 1913220-00  |         | 10216 RECEIVER,TRIPLE LINE       | 2   |               | E12                              |
| 45   | 45   |              | 1917261-00  |         | 100171 MUX,TRIPLE,4-IN W/EN      | 1   |               | E27,E37                          |
| 46   | 46   |              | 1917271-00  |         | 100151 FF-D HEX                  | 5   |               | E48                              |
| 47   | 47   |              | 1917277-00  |         | 100131 FF-D TRIPLE               | 11  |               | E42,E43,E49,E67,E70              |
|      |      |              |             |         |                                  |     | CONT          | E51,E53,E55,E56,E58,E59,E63,E64, |
| 48   | 48   |              | 1917280-00  |         | 100125 TRANSLATOR,ECL TO TT      | 1   |               | E68,E69,E71                      |
| 49   | 49   |              | 1917281-00  |         | 100124 TRANSLATOR,TTL TO EC      | 3   |               | E18                              |
| 50   | 50   |              | 1917284-00  |         | 100118 OA/OAI,5 WIDE             | 1   |               | E15-E17                          |
| 51   | 51   |              | 1917286-00  |         | 100114 RECEIVER,LINE,QUAD        | 1   |               | E44                              |
| 52   | 52   |              | 1917288-00  |         | 100107 OR/NOR,EXCLUSIVE,QUI      | 1   |               | E38                              |
| 53   | 53   |              | 1917289-00  |         | 100102 OR/NOR GATE,QUINT,2       | 7   |               | E62                              |
| 54   | 54   |              | 1917290-00  |         | 100101 OR/NOR GATE,TRIPLE,       | 3   |               | E39,E47,E52,E57,E61,E66,E72      |
| 55   | 55   |              | 1921307-01  |         | 74F04 HEX INVERTER               | 1   |               | E50,E54,E60                      |
| 56   | 56   |              | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN       | 1   |               | E13                              |
| 57   | 57   |              | 1921718-01  |         | 10H101 OR/NOR GATE QUAD          | 6   |               | E14                              |
| 58   | 58   |              | 1921719-01  |         | 10H105 OR/NOR GATE TRIPLE 2-3-2  | 2   |               | E25,E26,E28,E29,E35,E36          |
| 59   | 59   |              | 1921720 01  |         | 10H125 TRANSLATOR ECL TO TTL QUA | 2   |               | E40,E41                          |
| 60   | 60   |              | 9009185-00  |         | JUMPER, WIRE, INSULATED, BLACK 8 | 6   |               | E30,E31                          |
| 61   | 61   |              | 1821969-01  |         | OSCILLATOR, XTAL 108.0 MHZ       | 1   |               | W17-W22                          |
| 62   | 62   |              | 1821969-02  |         | OSCILLATOR, XTAL 120.0 MHZ       | 1   |               | E32                              |
| 63   | 63   |              | 1821969-03  |         | OSCILLATOR, XTAL 126.0 MHZ       | 1   |               | E33                              |
| 64   | 64   |              | 9000024-01  |         | EYELET,ROLLED 0.1210DX0.192      | 12  |               | E34                              |
| 65   | 65   |              | 9G07201-00  |         | PAD,MOUNTING,COMPONENT           | 38  |               |                                  |

66 NOTE: ITEM 28, REFERENCE DESIGNATORS CONT. ARE R616,R618,R620,  
67 NOTE: R623,R630,R800,R802,R804,R811,R821,R888,R950,R977-R979,R987,  
68 NOTE: R989,R995,R807,R996,R998,R999,R500-R505  
69 NOTE: ITEM 29, REFERENCE DESIGNATORS CONT. ARE R612,R615,R617,  
70 NOTE: R619,R621,R622,R801,R805,R806,R810,R820,R822,R951,R506-R511,R803

|               |  |  |       |                |      |      |                 |     |
|---------------|--|--|-------|----------------|------|------|-----------------|-----|
| D I G I T A L |  |  | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|               |  |  | CLOCK |                | K    | PL   | M7474-0-D8P     | A   |

AUTOMATED BY PRTLST.4Q(50)

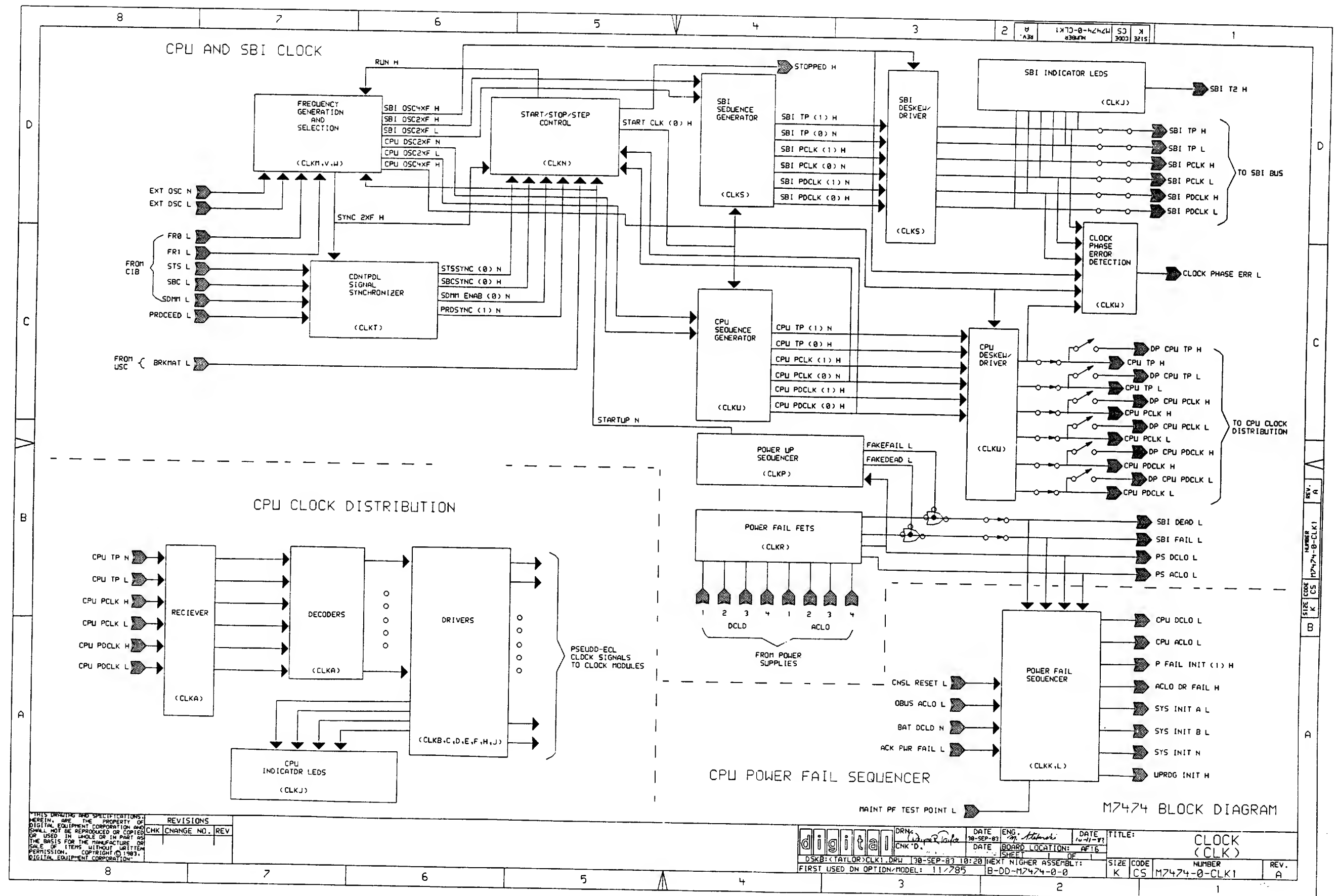
PARTS LIST

SHEET A4 OF A4

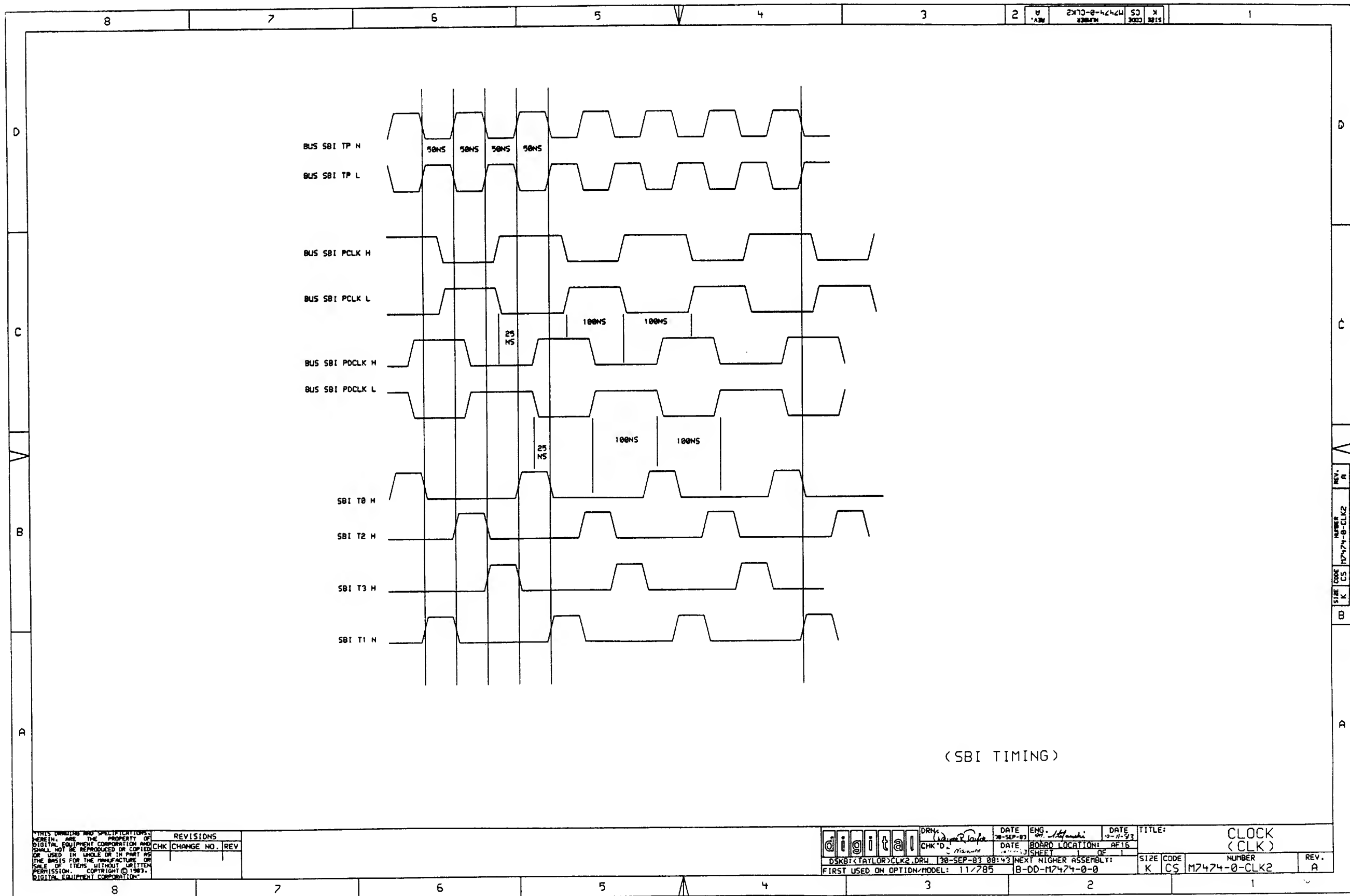
LINE ITEM TOP DOCUMENT PART NUMBER MIN REV DESCRIPTION VARIATION REVISION LEVEL: GTY PER VARIATION 00 REFERENCE DESIGNATOR

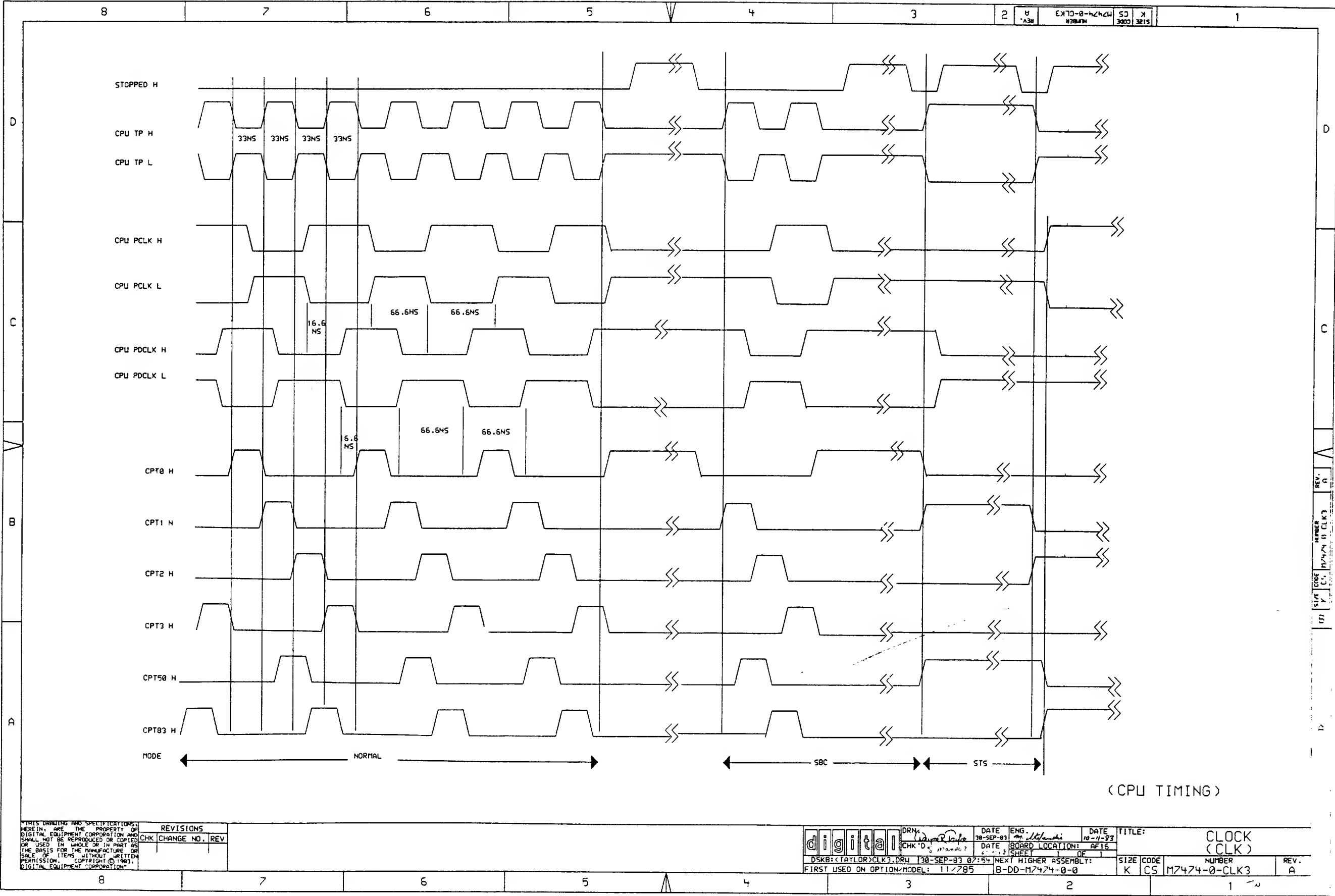
71 NOTE: R959,R986,R988,R990,R991,R993,R994

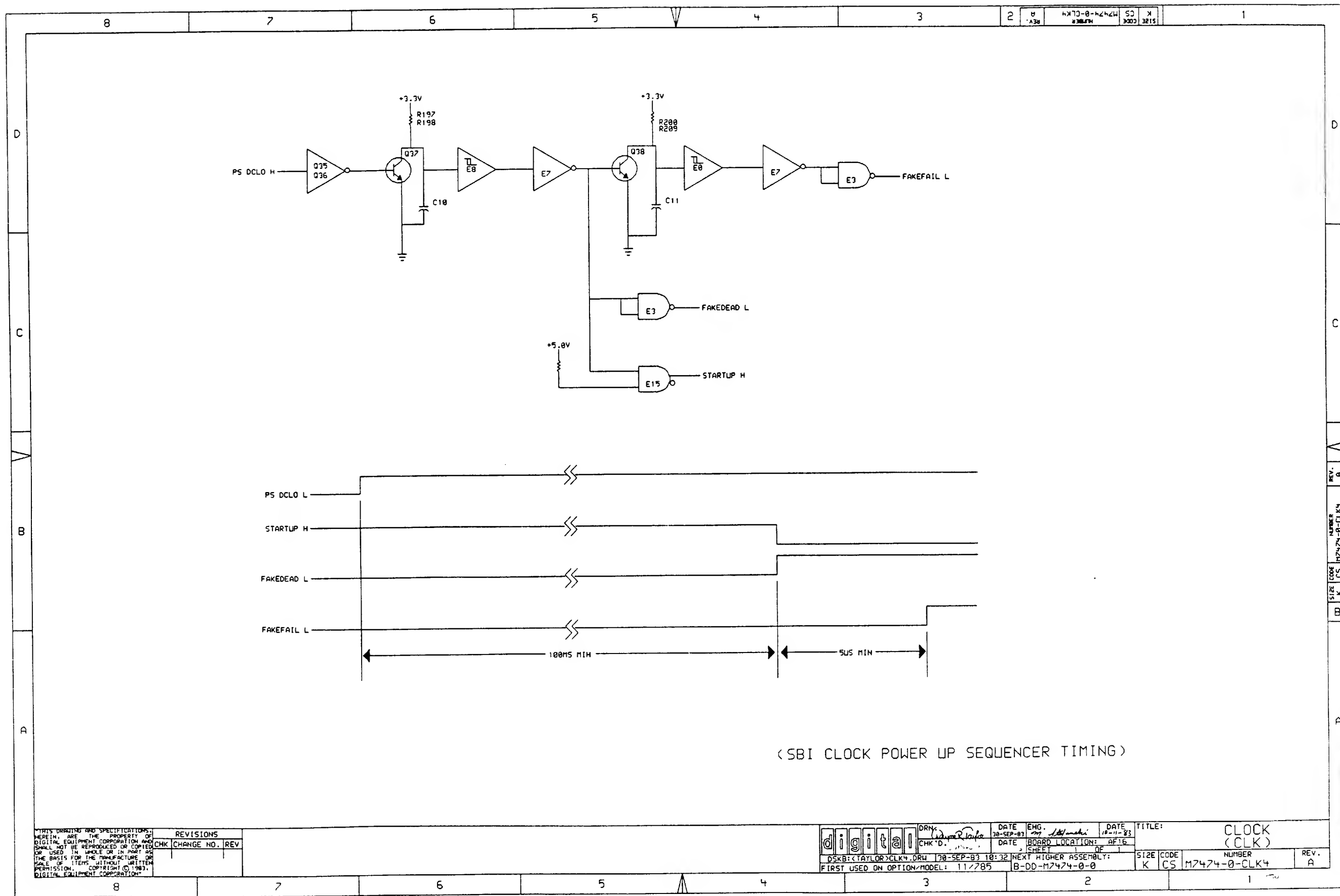
|   |   |   |   |   |   |   |       |                |      |      |                 |     |
|---|---|---|---|---|---|---|-------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   | CLOCK |                | K    | PL   | M7474-0-CBP     | A   |











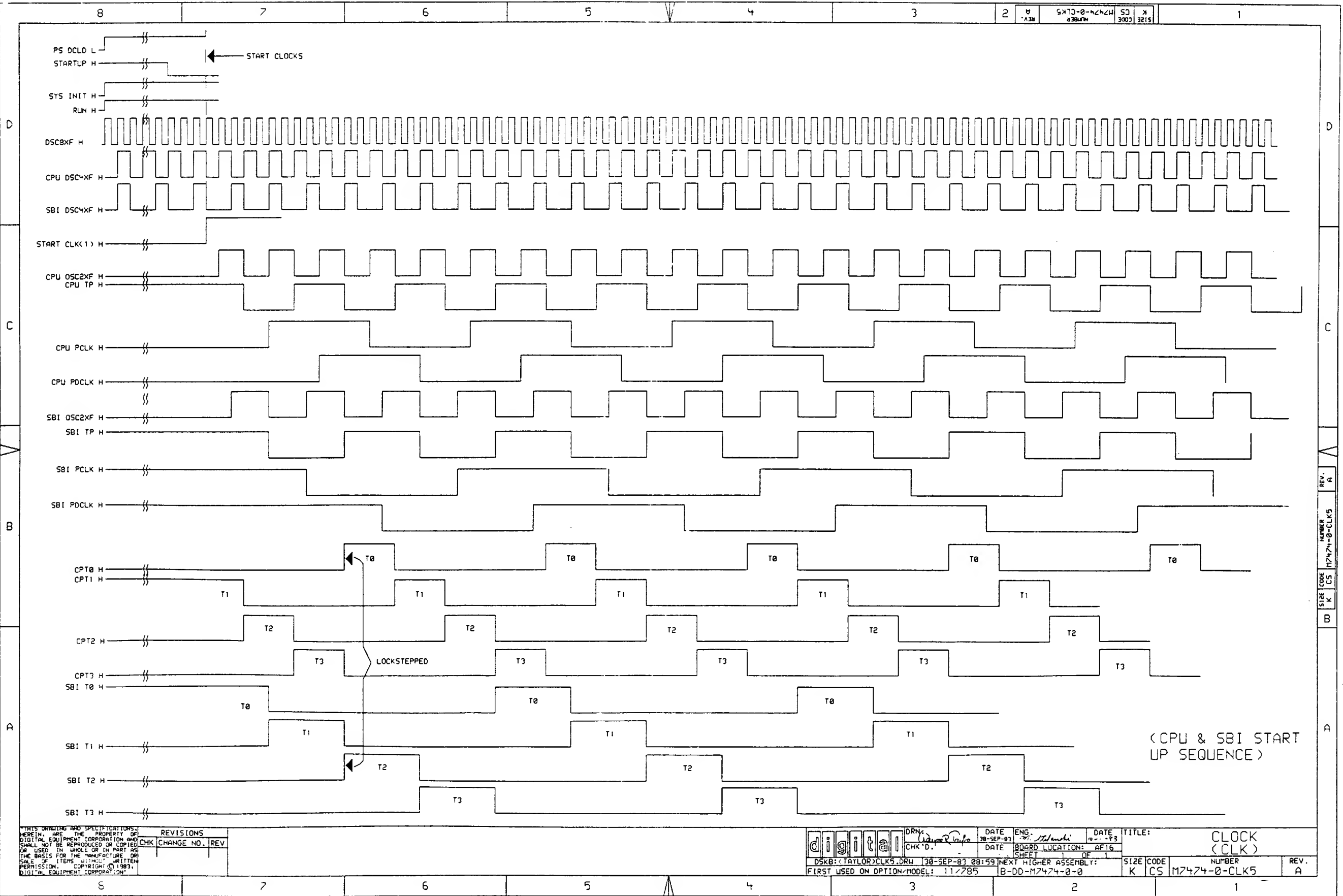
THIS DRAWING AND SPECIFICATIONS  
HEREIN, ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983  
DIGITAL EQUIPMENT CORPORATION

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

**digital**  
DRN: *W. R. Taylor*  
CHK'D: *W. R. Taylor*

|           |                     |          |             |
|-----------|---------------------|----------|-------------|
| DATE      | ENG.                | DATE     | TITLE:      |
| 30-SEP-83 | <i>W. R. Taylor</i> | 10-11-83 | CLOCK (CLK) |
| DATE      | BOARD LOCATION:     | SHEET    | OF          |
| 30-SEP-83 | AF16                | 1        | 1           |

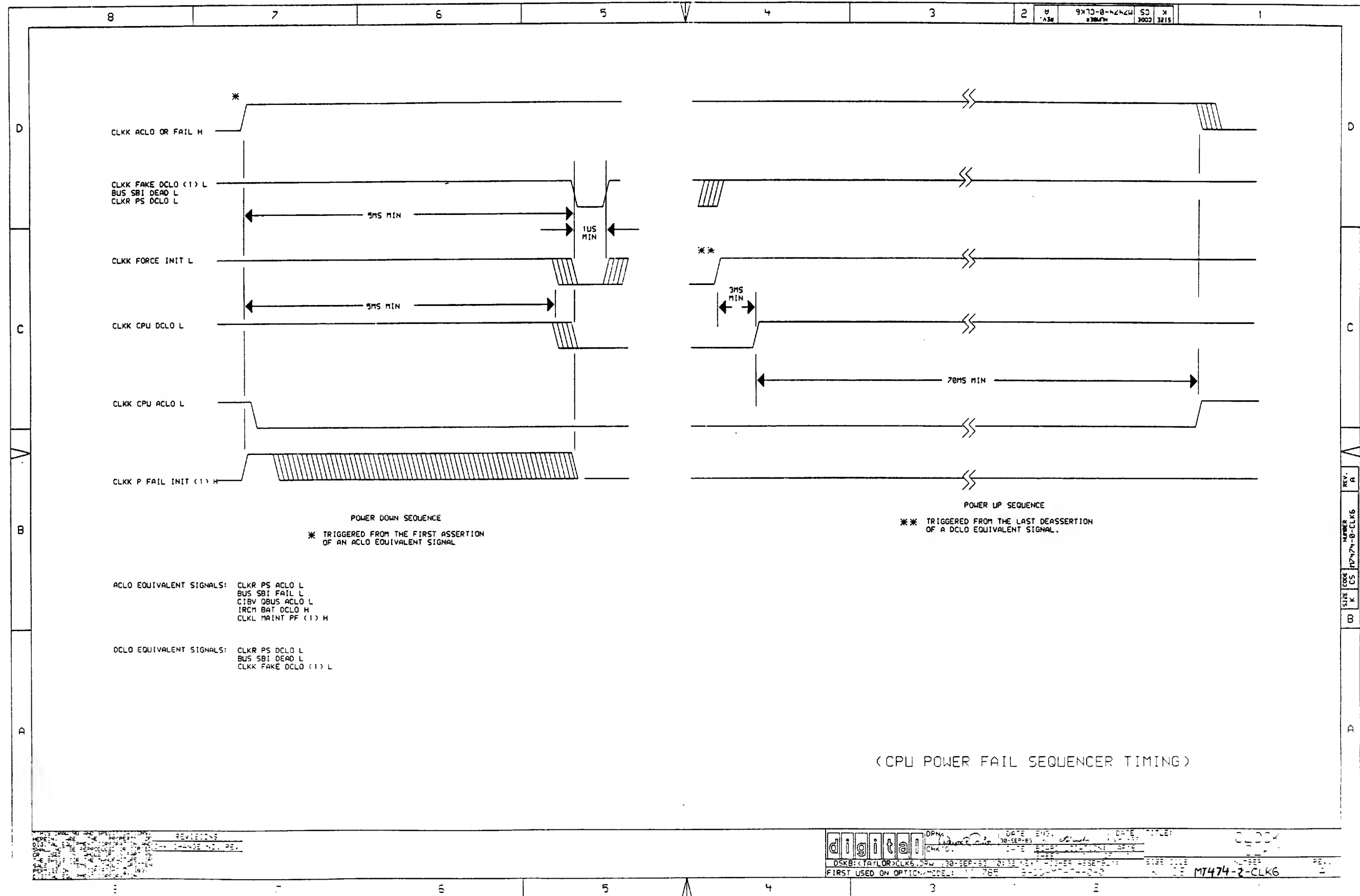
|                             |            |                |                       |
|-----------------------------|------------|----------------|-----------------------|
| DSKID: <TAYLOR>CLK4.DRW     | 130-SEP-83 | 10:32          | NEXT HIGHER ASSEMBLY: |
| FIRST USED ON OPTION/MODEL: | 11/785     | B-DD-M7474-0-0 |                       |
| SIZE                        | CODE       | NUMBER         | REV.                  |
| K                           | CS         | M7474-0-CLK4   | A                     |



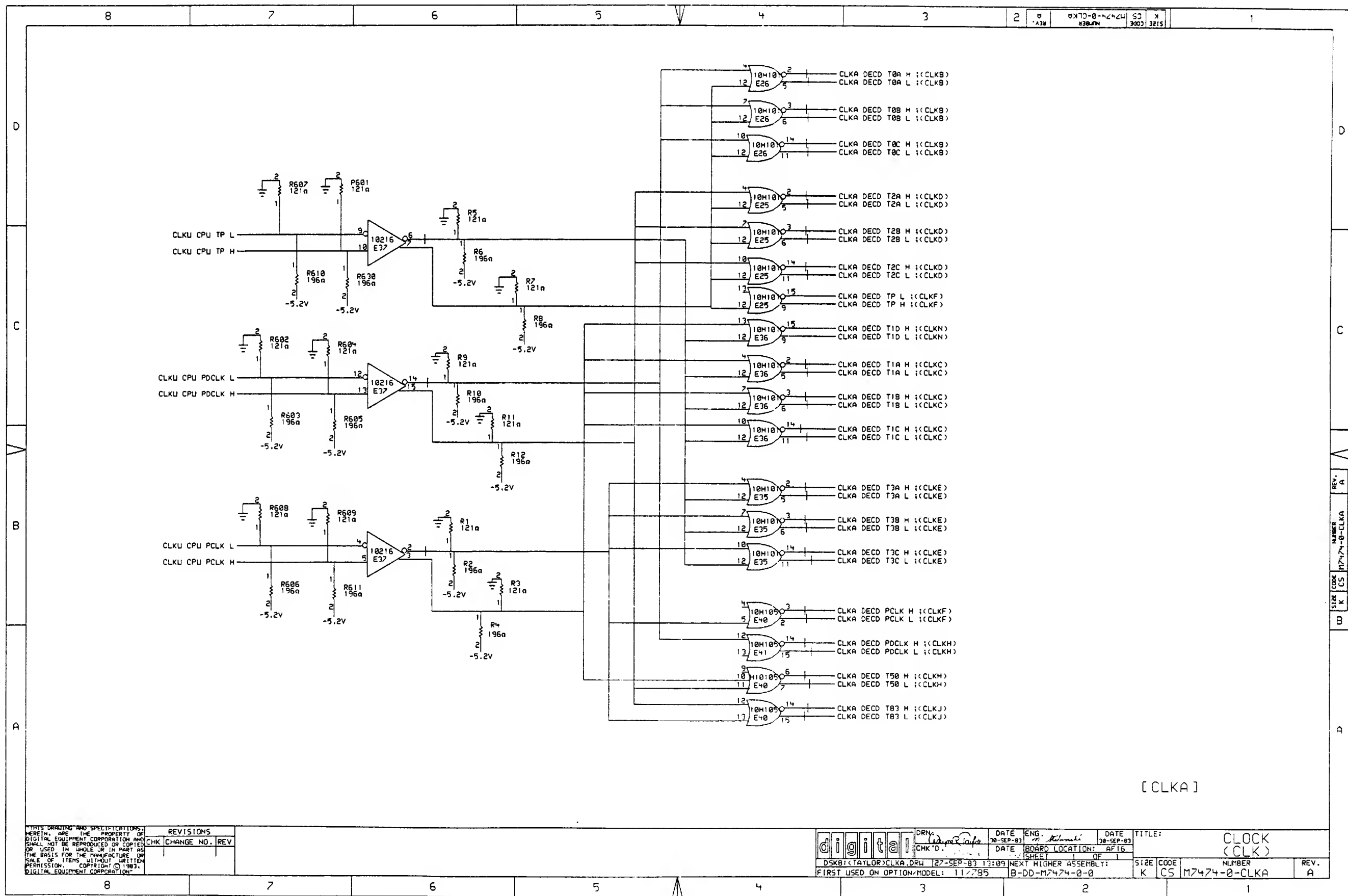
THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1989,  
DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|                                    |                          |                  |                                      |               |                    |
|------------------------------------|--------------------------|------------------|--------------------------------------|---------------|--------------------|
| digital                            | DRN: <i>David Taylor</i> | DATE: 30-SEP-83  | ENG: <i>M. Nakachi</i>               | DATE: 10-1-83 | TITLE: CLOCK (CLK) |
|                                    | CHK'D:                   |                  |                                      |               |                    |
|                                    | DSKB: <TAYLOR>CLK5.DRW   | 130-SEP-83 08:59 | NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0 | SIZE: K       | CODE: CS           |
| FIRST USED ON OPTION/MODEL: 11/285 |                          |                  | REV: A                               |               |                    |



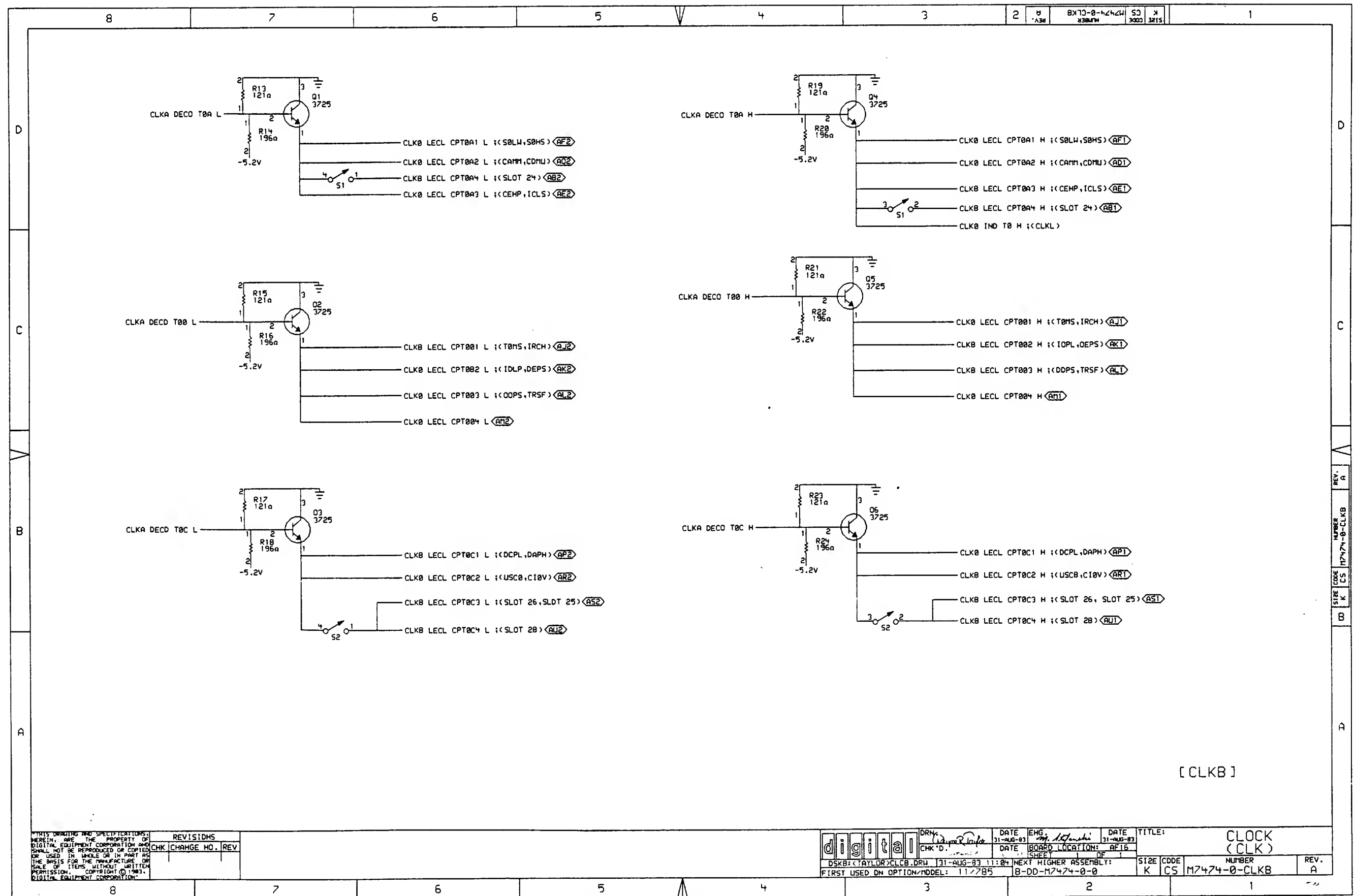
| 8  | 7                              | 6  | 5   | 4 | 3 | 2      | 1                   |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
|--|--------------------------------|--|---|---|---|--------|---------------------|----------------|------|------|-----------------------|---------------------|---------|-------------------|---------------------|--------------------------------|---|---|----|------|--|---|-----------------|------|---|-----------------|------|---|---|
|  |                                |  |   |   |   | REV. A | NUMBER M7474-0-CLK7 | SIZE CODE K CS | 3000 | 3215 |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| <table><thead><tr><th>JUMPER IDENTIFICATION</th><th>SCHEMATIC REFERENCE</th><th>PURPOSE</th><th>INSTALLATION DATA</th></tr></thead><tbody><tr><td>S1,S2,S4 THROUGH S9</td><td>CLKB,CLKC,CLKD, CLKE,CLKF,CLKN</td><td>SEND ECL CLOCK SIGNALS TO THE ACCELERATOR (SLOT 24, 25,26 AND 28)</td><td>SWITCHED "ON" ONLY WHEN ACCELERATOR IS INSTALLED.</td></tr><tr><td>S3</td><td>CLKR</td><td>DRIVE SBI FAIL AND SBI DEAD ONTO THE BUS IN THE EVENT OF POWER FAILURE IN THE CPU SUBSYSTEM.</td><td rowspan="2">S3 "OFF" AND W17 THROUGH W22 ARE REMOVED ONLY WHEN THE CPU RECIEVES IT'S CLOCK SIGNALS FROM ANOTHER DEVICE ON THE SBI (SUCH AS A SECOND CPU).</td></tr><tr><td>W17 THROUGH W22</td><td>CLKS</td><td>DRIVE THE SBI CLOCK SIGNALS ONTO THE BUS.</td></tr><tr><td>S10 THROUGH S15</td><td>CLKU</td><td>DRIVE THE CPU CLOCK SIGNALS TO THE CPU DISTRIBUTION CIRCUITS.</td><td>S13 THROUGH S15 ARE "ON" FOR A SINGLE PROCESSOR CONFIGURATION.<br/><br/>S10 THROUGH S12 ARE "ON" WHEN THE CPU RECIEVES IT'S CLOCK SIGNALS FROM ANOTHER DEVICE (SUCH AS A SECOND CPU).</td></tr></tbody></table> |                                |  |   |   |   |        |                     |                |      |      | JUMPER IDENTIFICATION | SCHEMATIC REFERENCE | PURPOSE | INSTALLATION DATA | S1,S2,S4 THROUGH S9 | CLKB,CLKC,CLKD, CLKE,CLKF,CLKN | SEND ECL CLOCK SIGNALS TO THE ACCELERATOR (SLOT 24, 25,26 AND 28) | SWITCHED "ON" ONLY WHEN ACCELERATOR IS INSTALLED. | S3 | CLKR | DRIVE SBI FAIL AND SBI DEAD ONTO THE BUS IN THE EVENT OF POWER FAILURE IN THE CPU SUBSYSTEM. | S3 "OFF" AND W17 THROUGH W22 ARE REMOVED ONLY WHEN THE CPU RECIEVES IT'S CLOCK SIGNALS FROM ANOTHER DEVICE ON THE SBI (SUCH AS A SECOND CPU). | W17 THROUGH W22 | CLKS | DRIVE THE SBI CLOCK SIGNALS ONTO THE BUS. | S10 THROUGH S15 | CLKU | DRIVE THE CPU CLOCK SIGNALS TO THE CPU DISTRIBUTION CIRCUITS. | S13 THROUGH S15 ARE "ON" FOR A SINGLE PROCESSOR CONFIGURATION.<br><br>S10 THROUGH S12 ARE "ON" WHEN THE CPU RECIEVES IT'S CLOCK SIGNALS FROM ANOTHER DEVICE (SUCH AS A SECOND CPU). |
| JUMPER IDENTIFICATION  | SCHEMATIC REFERENCE            | PURPOSE  | INSTALLATION DATA   |   |   |        |                     |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| S1,S2,S4 THROUGH S9  | CLKB,CLKC,CLKD, CLKE,CLKF,CLKN | SEND ECL CLOCK SIGNALS TO THE ACCELERATOR (SLOT 24, 25,26 AND 28)                            | SWITCHED "ON" ONLY WHEN ACCELERATOR IS INSTALLED.   |   |   |        |                     |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| S3   | CLKR                           | DRIVE SBI FAIL AND SBI DEAD ONTO THE BUS IN THE EVENT OF POWER FAILURE IN THE CPU SUBSYSTEM. | S3 "OFF" AND W17 THROUGH W22 ARE REMOVED ONLY WHEN THE CPU RECIEVES IT'S CLOCK SIGNALS FROM ANOTHER DEVICE ON THE SBI (SUCH AS A SECOND CPU).                                       |   |   |        |                     |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| W17 THROUGH W22  | CLKS                           | DRIVE THE SBI CLOCK SIGNALS ONTO THE BUS.  |   |   |   |        |                     |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| S10 THROUGH S15  | CLKU                           | DRIVE THE CPU CLOCK SIGNALS TO THE CPU DISTRIBUTION CIRCUITS.                                | S13 THROUGH S15 ARE "ON" FOR A SINGLE PROCESSOR CONFIGURATION.<br><br>S10 THROUGH S12 ARE "ON" WHEN THE CPU RECIEVES IT'S CLOCK SIGNALS FROM ANOTHER DEVICE (SUCH AS A SECOND CPU). |   |   |        |                     |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| <p>(SWITCH &amp; JUMPER SELECT DATA)</p>   |                                |  |   |   |   |        |                     |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| <div><div><p>THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1983, DIGITAL EQUIPMENT CORPORATION</p><table><thead><tr><th colspan="3">REVISIONS</th></tr><tr><th>CHK</th><th>CHANGE NO.</th><th>REV.</th></tr></thead><tbody><tr><td></td><td></td><td></td></tr></tbody></table></div><div><div><div>digital</div><div>DRN: <i>Adrian R. Taylor</i></div><div>DATE 20-SEP-83</div><div>ENG. <i>W. H. H. H.</i></div><div>DATE 11-1-83</div><div>DATE</div><div>BOARD LOCATION: AF16</div><div>SHEET 1 OF 1</div></div><div><div>DSKB: &lt;TAYLOR&gt;CLK7.DRW</div><div>29-SEP-83 15:46</div><div>NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0</div><div>FIRST USED ON OPTION/MODEL: 11/785</div></div><div><div>TITLE: CLOCK (CLK)</div><div>SIZE CODE K CS</div><div>NUMBER M7474-0-CLK7</div><div>REV. A</div></div></div></div>  |                                |  |   |   |   |        |                     |                |      |      | REVISIONS             |                     |         | CHK               | CHANGE NO.          | REV.                           |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| REVISIONS  |                                |  |   |   |   |        |                     |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| CHK  | CHANGE NO.                     | REV.   |   |   |   |        |                     |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
|  |                                |  |   |   |   |        |                     |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |
| 8  | 7                              | 6  | 5   | 4 | 3 | 2      | 1                   |                |      |      |                       |                     |         |                   |                     |                                |   |   |    |      |  |   |                 |      |   |                 |      |   |   |



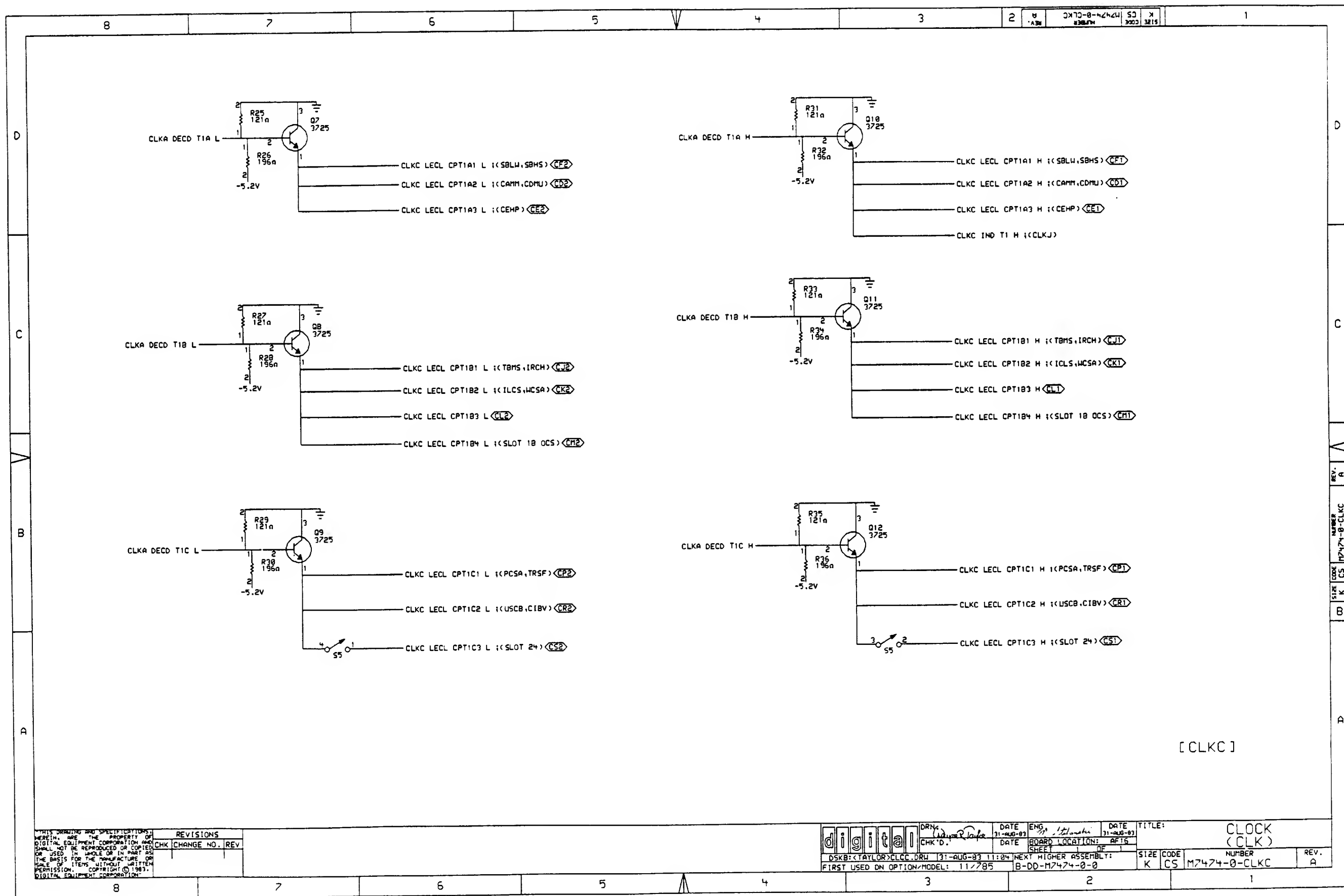
THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983. DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

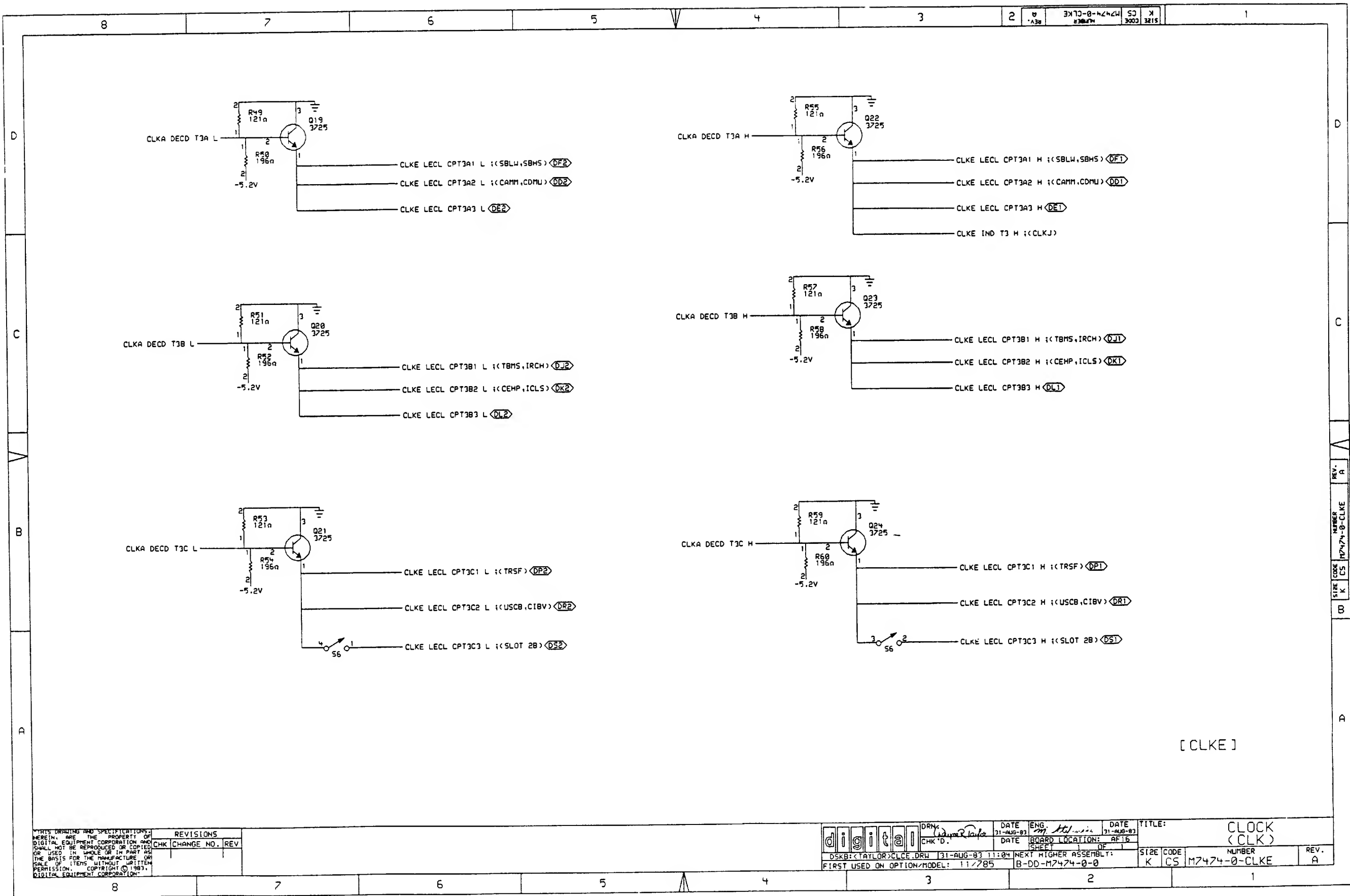
|  |                       |                      |                                      |                 |                    |
|--|-----------------------|----------------------|--------------------------------------|-----------------|--------------------|
| digital                                | DRN: <i>Admiral</i>   | DATE: 30-SEP-83      | ENG: <i>Kinnick</i>                  | DATE: 30-SEP-83 | TITLE: CLOCK (CLK) |
|  | CHK'D: <i>Admiral</i> | DATE: 30-SEP-83      | BOARD LOCATION: AF16                 |                 |                    |
| DSKB: (TAYLOR)CLKA.DRW 12-SEP-83 13:09 |                       |                      | NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0 |                 |                    |
| FIRST USED ON OPTION MODEL: 11/785     |                       |                      |                                      |                 |                    |
| SIZE: K                                | CODE: CS              | NUMBER: M7474-0-CLKA |                                      | REV: A          |                    |







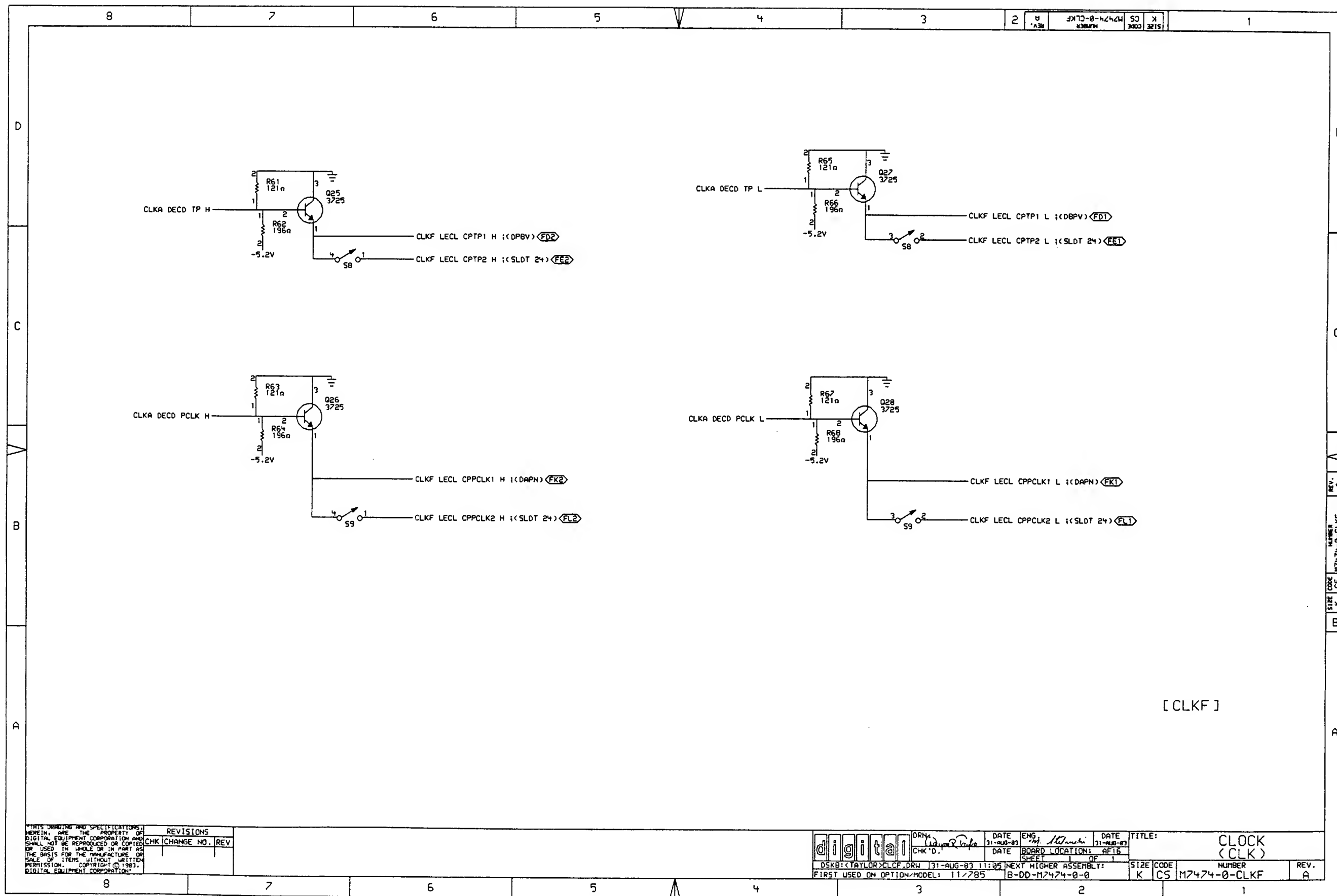


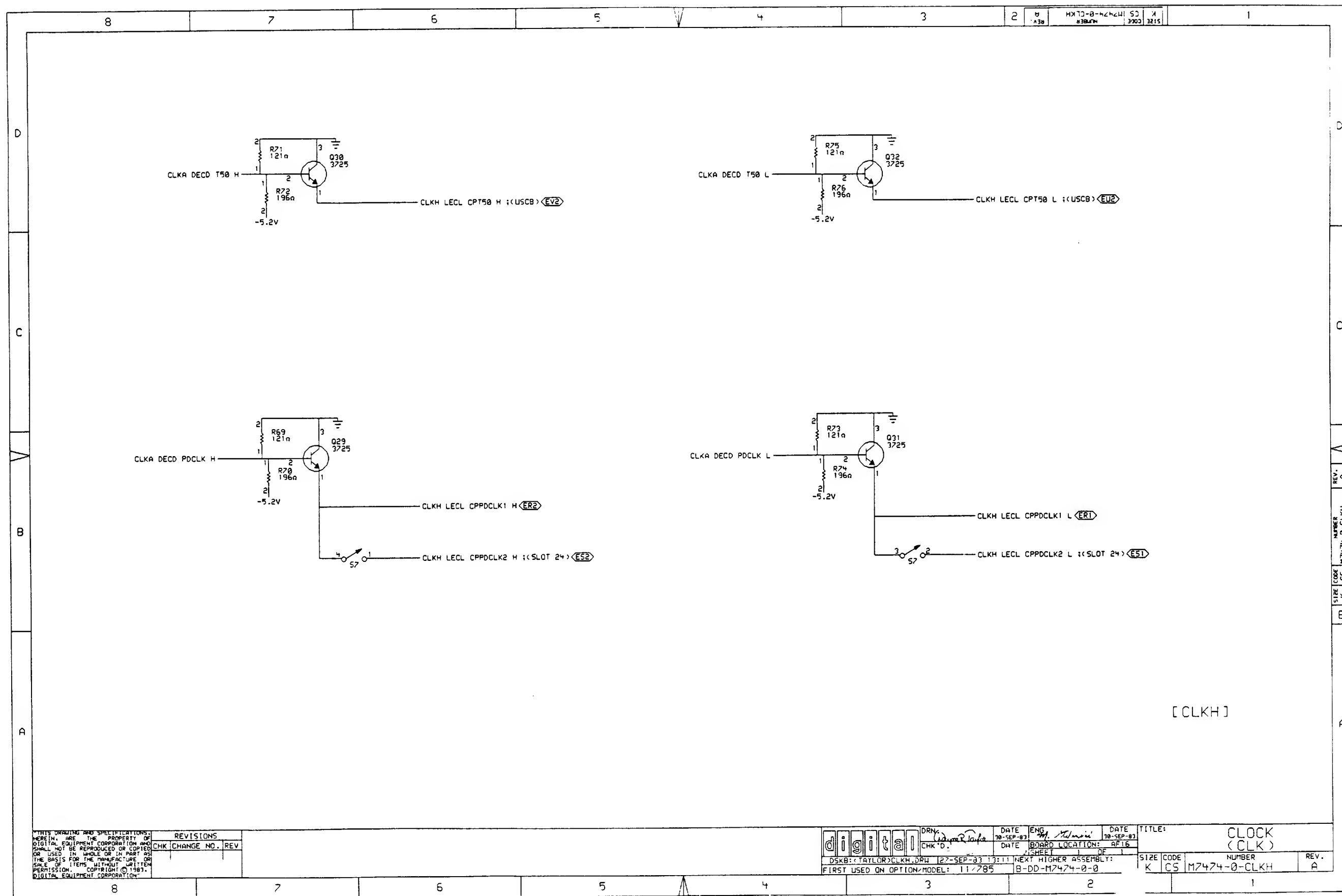


THIS DRAWING AND SPECIFICATIONS  
 HEREIN ARE THE PROPERTY OF  
 DIGITAL EQUIPMENT CORPORATION AND  
 SHALL NOT BE REPRODUCED OR COPIED  
 OR USED IN WHOLE OR IN PART AS  
 THE BASIS FOR THE MANUFACTURE OR  
 SALE OF ITEMS WITHOUT WRITTEN  
 PERMISSION. COPYRIGHT © 1983,  
 DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|                                      |           |                |           |              |      |
|--------------------------------------|-----------|----------------|-----------|--------------|------|
| digit                                | DATE      | ENG.           | DATE      | TITLE:       |      |
|                                      | 31-AUG-83 |                | 31-AUG-83 | CLOCK (CLK)  |      |
| CHK'D.                               | DATE      | BOARD LOCATION | DE        | SIZE         | CODE |
|                                      |           |                |           | K            | CS   |
| FIRST USED ON OPTION/MODEL: 11/285   |           |                |           | NUMBER       |      |
| NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0 |           |                |           | M7474-0-CLKE |      |
| REV.                                 |           |                |           |              | A    |





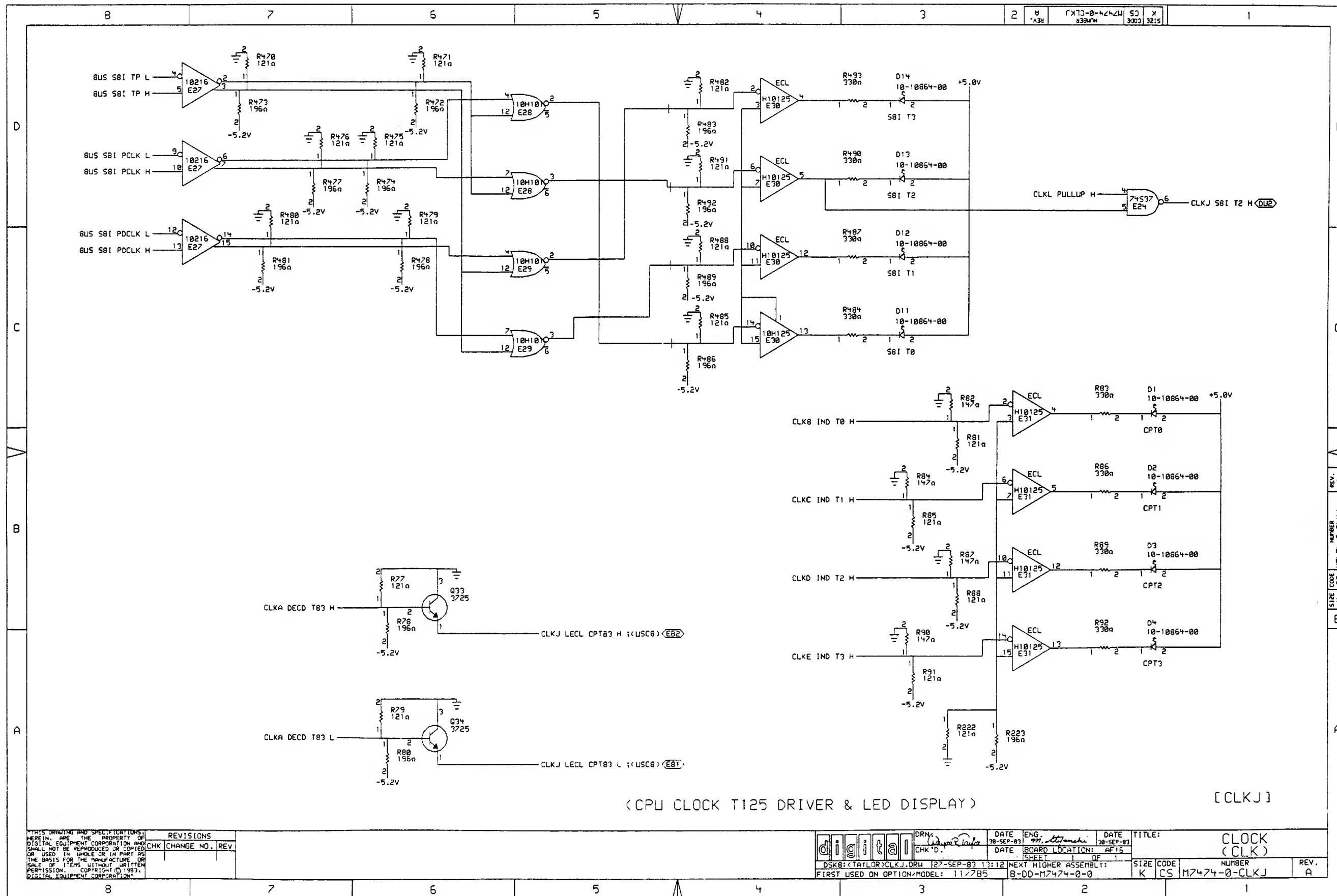
THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1987, DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

digital

DRN: *W. R. L. J.* DATE: 30-SEP-83 ENG: *W. R. L. J.* DATE: 30-SEP-83  
CHK'D: DATE: 30-SEP-83 BOARD LOCATION: AF16  
DSKB: TAYLOR\CLKH.DRW 127-SEP-83 13:11 NEXT HIGHER ASSEMBLY: 11/785  
FIRST USED ON OPTION/MODEL: B-DD-M7474-0-0

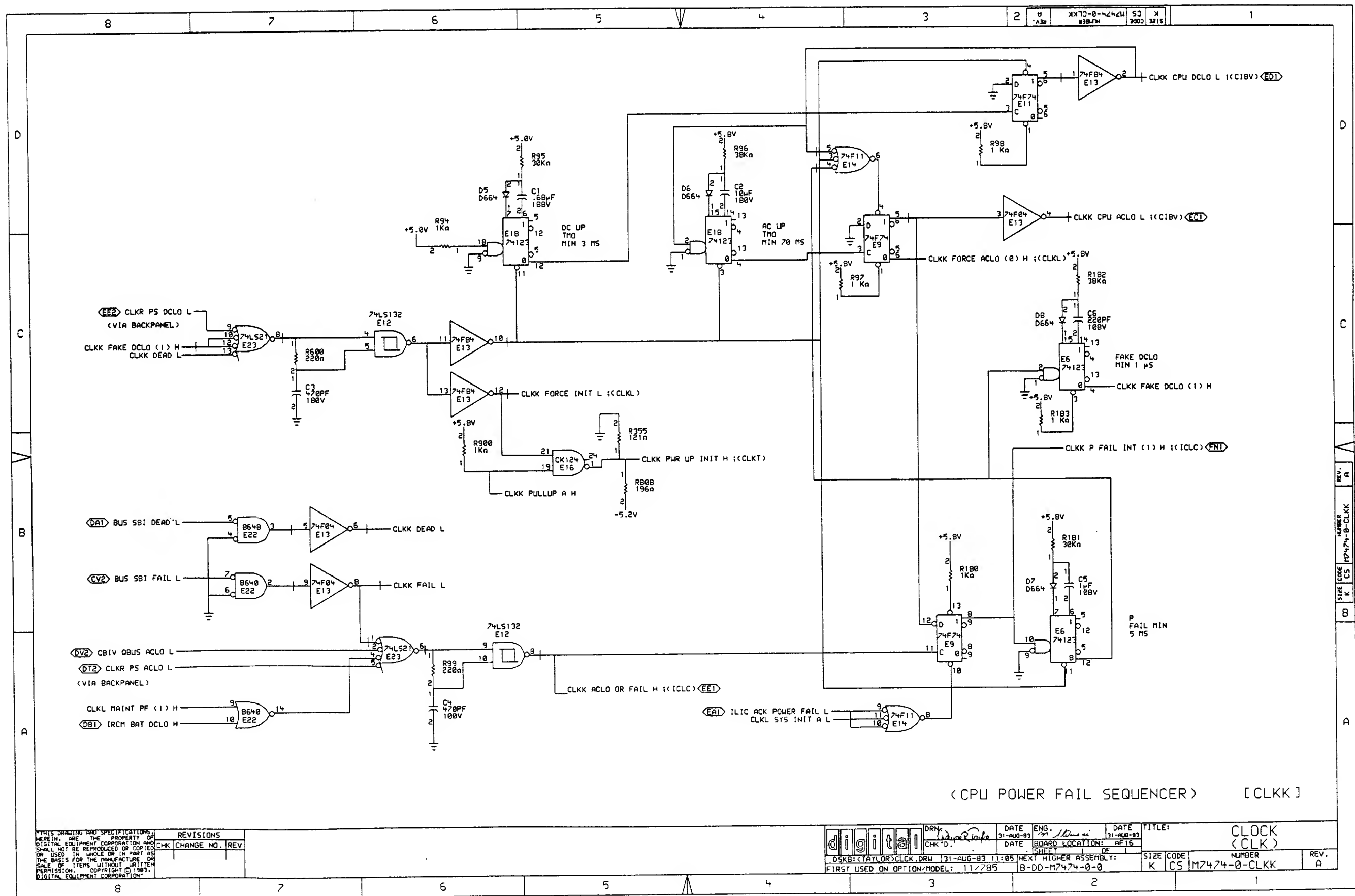
TITLE: CLOCK (CLK)  
SIZE CODE K CS NUMBER M7474-0-CLKH REV. A



THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|   |                            |                 |                         |                     |                    |
|---|----------------------------|-----------------|-------------------------|---------------------|--------------------|
| digital   | DRN: <i>David R. Latta</i> | DATE: 28-SEP-83 | ENG: <i>m. Atkinson</i> | DATE: 28-SEP-83     | TITLE: CLOCK (CLK) |
|   | CHK'D:                     | DATE:           | BOARD LOCATION: AF15    | SHEET 1 OF 1        |                    |
| DSK8: <TAYLOR> CLKJ.DRW 127-SEP-83 1:12 NEXT HIGHER ASSEMBLY: |                            |                 | SIZE CODE K CS          | NUMBER M7474-0-CLKJ | REV. A             |
| FIRST USED ON OPTION MODEL: 11/785                            |                            |                 | B-DD-M7474-0-0          |                     |                    |



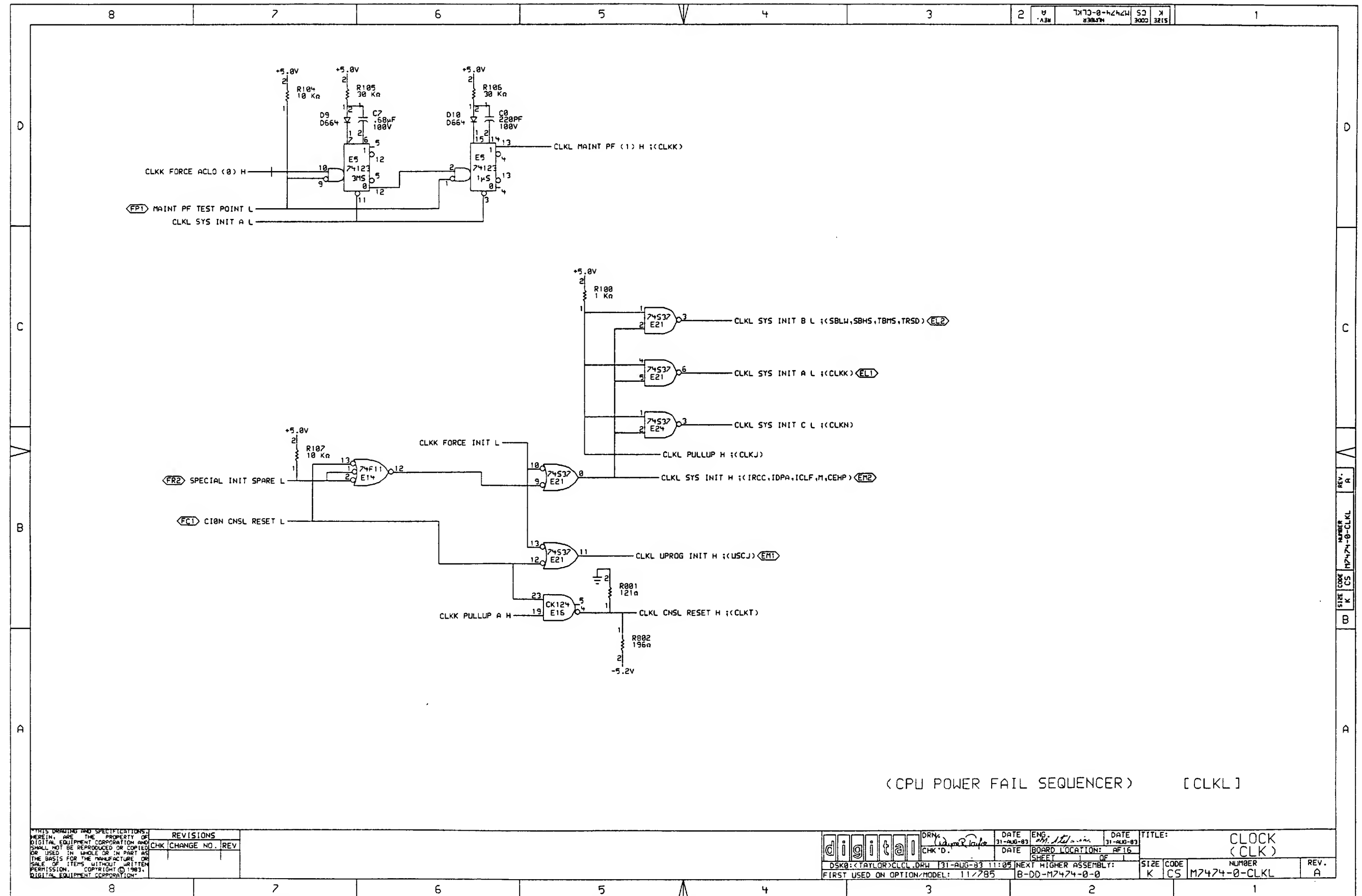
THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION

| REVISIONS |                |
|-----------|----------------|
| CHK       | CHANGE NO. REV |
|           |                |

**digital**

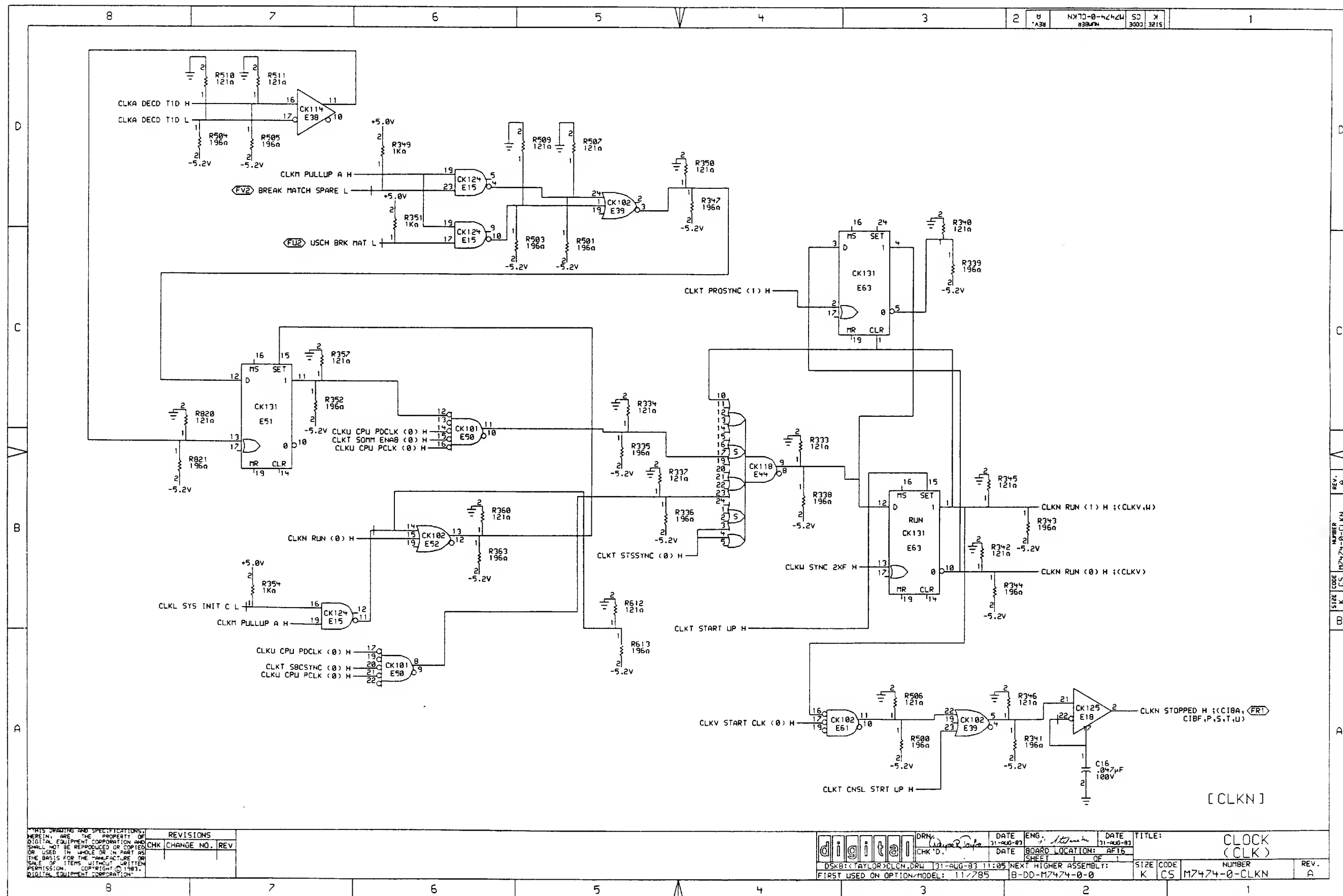
|        |           |        |           |       |
|--------|-----------|--------|-----------|-------|
| DRN    | DATE      | ENG.   | DATE      | TITLE |
| CHK'D. | 31-AUG-83 | 11/285 | 31-AUG-83 | CLOCK |
|        |           |        |           | (CLK) |
|        |           |        |           |       |

|                             |                  |                       |      |      |              |      |
|-----------------------------|------------------|-----------------------|------|------|--------------|------|
| DSKB: TAYLOR CLK.DRW        | 131-AUG-83 11:05 | NEXT HIGHER ASSEMBLY: | SIZE | CODE | NUMBER       | REV. |
| FIRST USED ON OPTION/MODEL: | 11/285           | B-DD-M7474-0-CLKK     | K    | CS   | M7474-0-CLKK | A    |

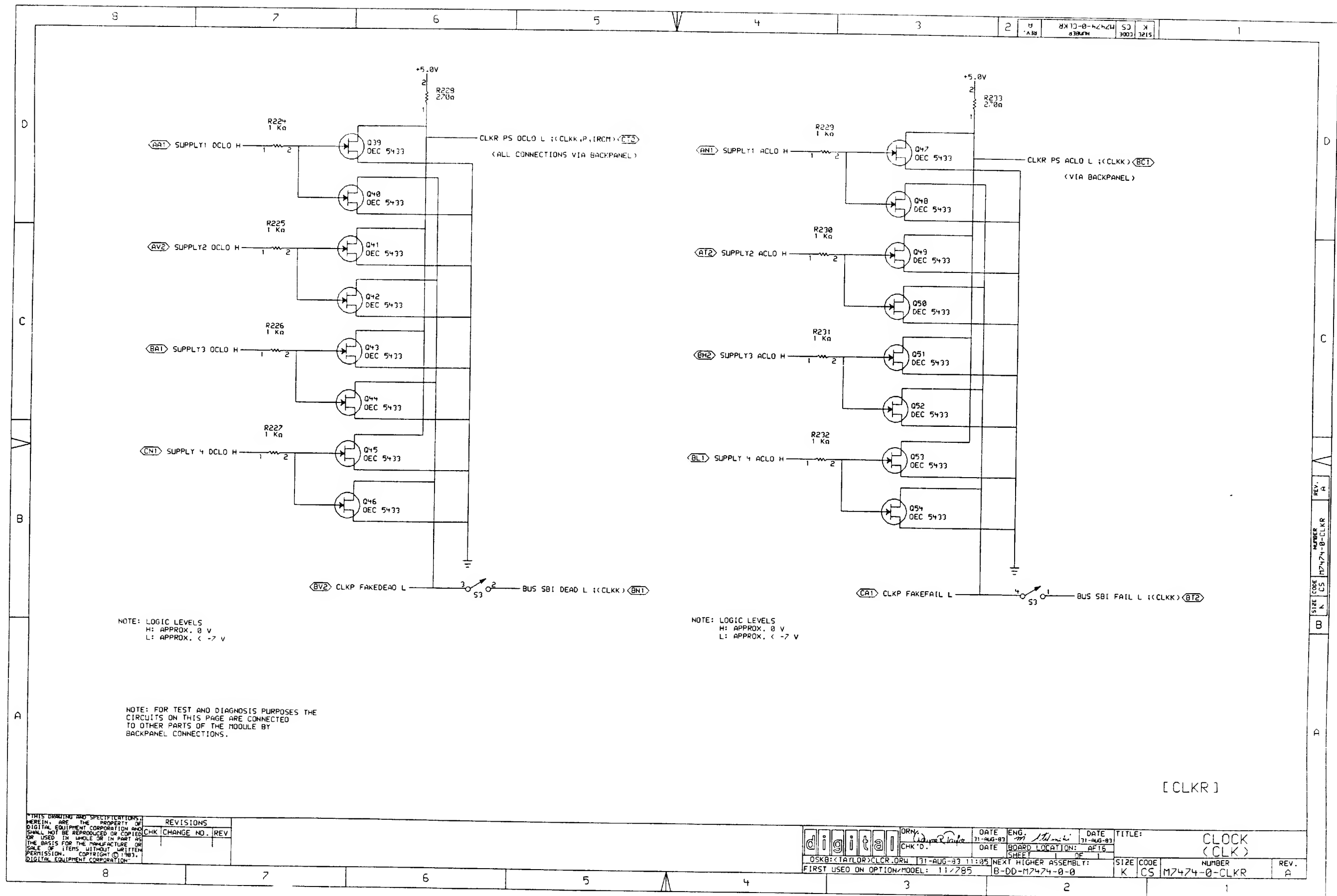












THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION.

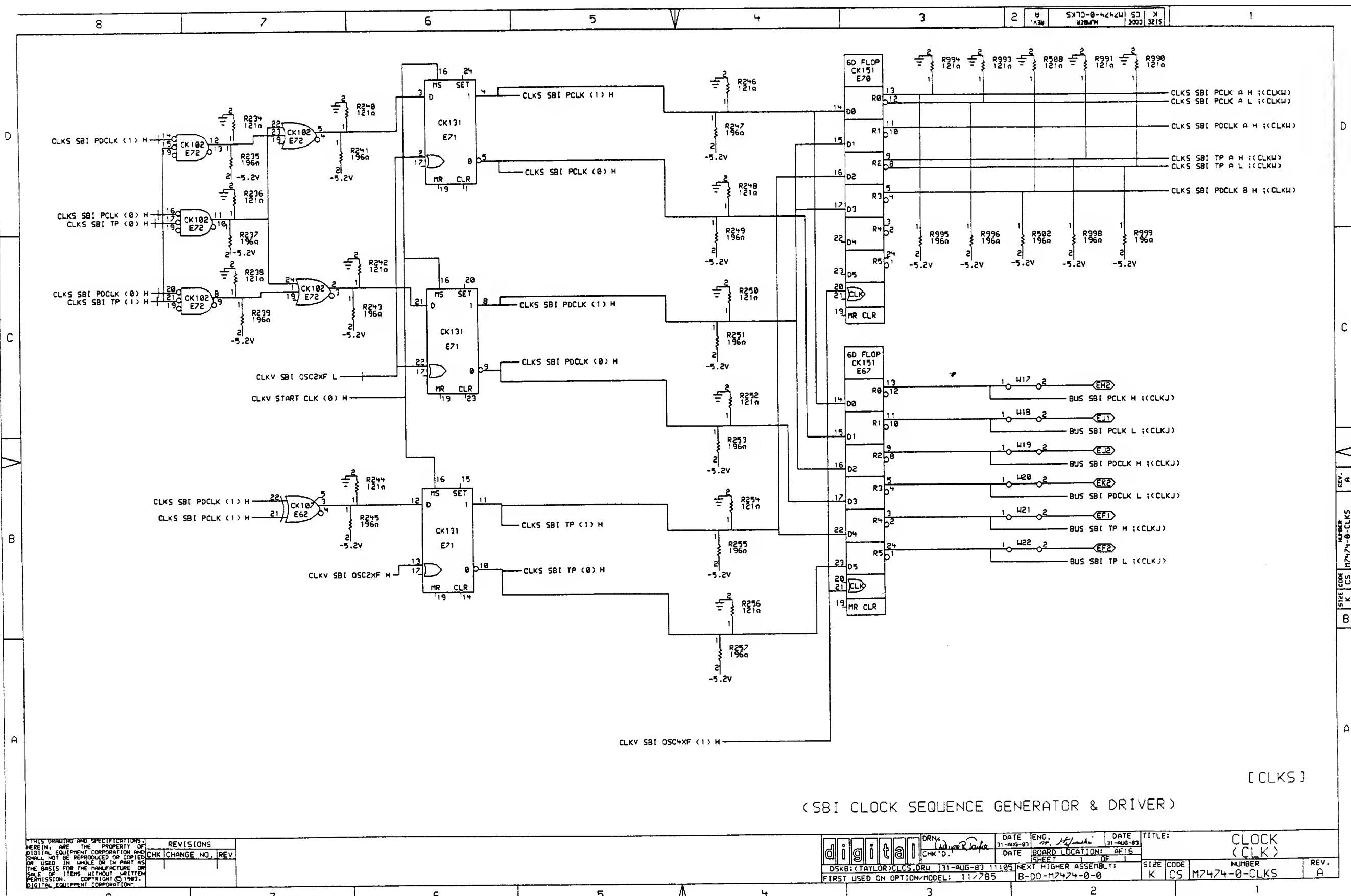
| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

**digital** ORN  
CHK'D. *[Signature]*

DATE 31-AUG-83 ENG. *[Signature]* DATE 31-AUG-83  
DATE BOARD LOCATION: AFIS  
SHEET 1 OF 1

TITLE: CLOCK (CLK)  
OSKB: <TAYLOR>CLCR.0RW 31-AUG-83 11:05 NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0  
FIRST USED ON OPTION/MODEL: 11/785

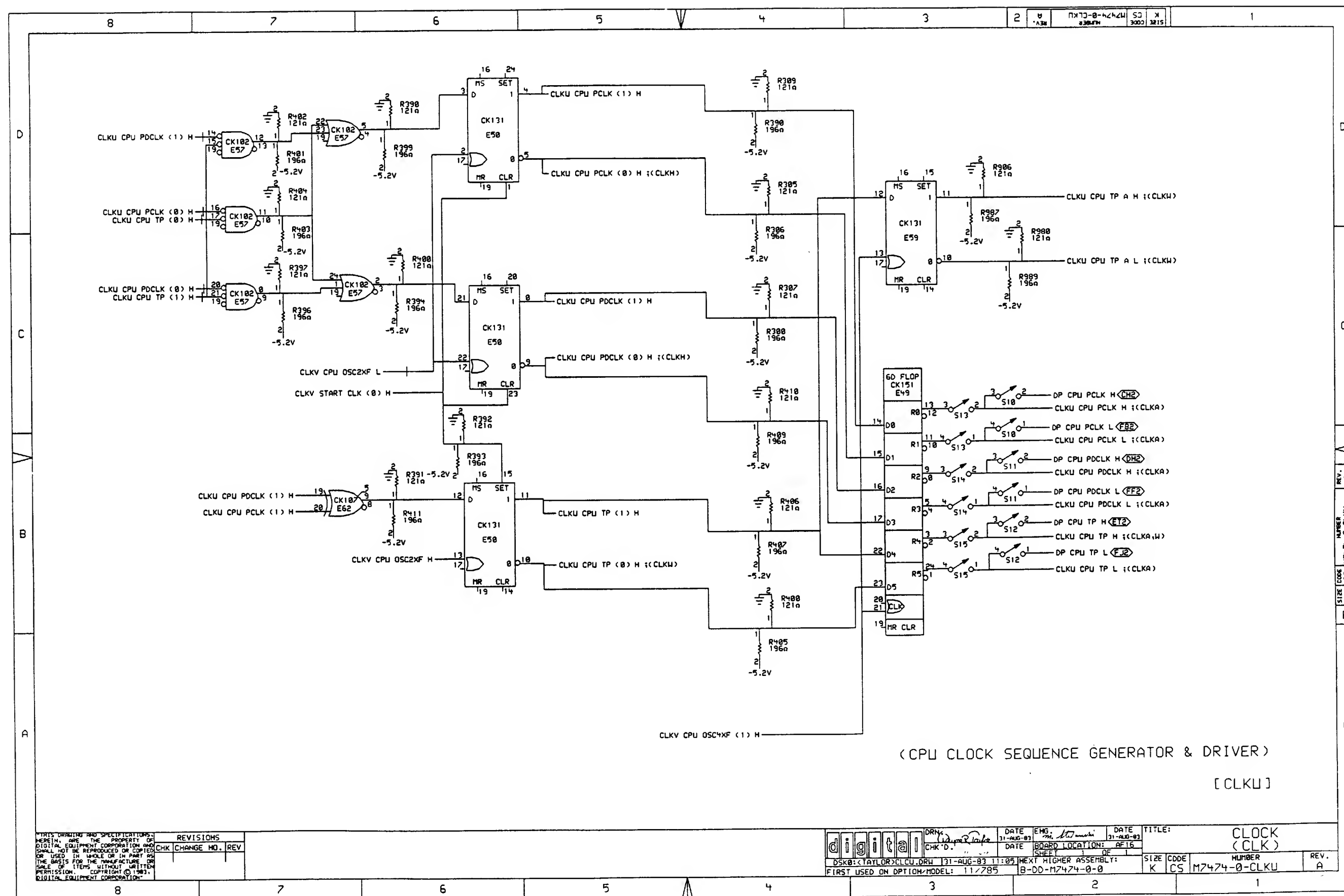
|      |      |              |      |
|------|------|--------------|------|
| SIZE | CODE | NUMBER       | REV. |
| K    | CS   | M7474-0-CLKR | A    |



| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|                                    |  |                         |                      |                                      |                 |                    |                      |
|------------------------------------|--|-------------------------|----------------------|--------------------------------------|-----------------|--------------------|----------------------|
| digital                            |  | DRN: <i>W. J. Smith</i> | DATE: 31-AUG-83      | ENG: <i>W. J. Smith</i>              | DATE: 31-AUG-83 | TITLE: CLOCK (CLK) |                      |
| CHK'D: <i>W. J. Smith</i>          |  | DATE: 31-AUG-83         | BOARD LOCATION: AF16 |                                      | SHEET 1 OF 1    |                    |                      |
| DSKB: TAYLOR CLCS.DRW              |  |                         | 31-AUG-83 11:05      | NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0 |                 | SIZE CODE: K CS    | NUMBER: M7474-0-CLKS |
| FIRST USED ON OPTION/MODEL: 11/785 |  |                         |                      |                                      | REV. A          |                    |                      |

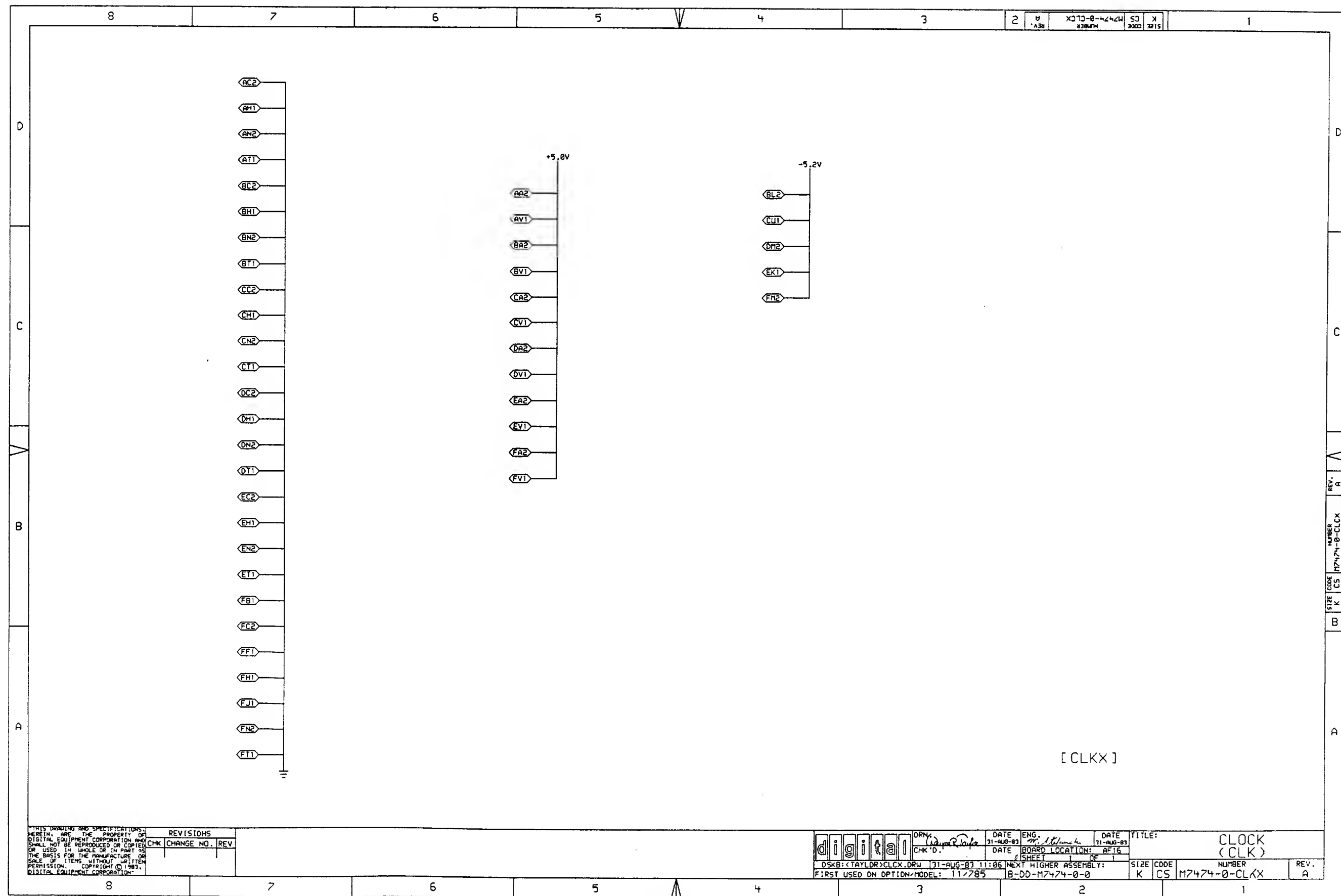


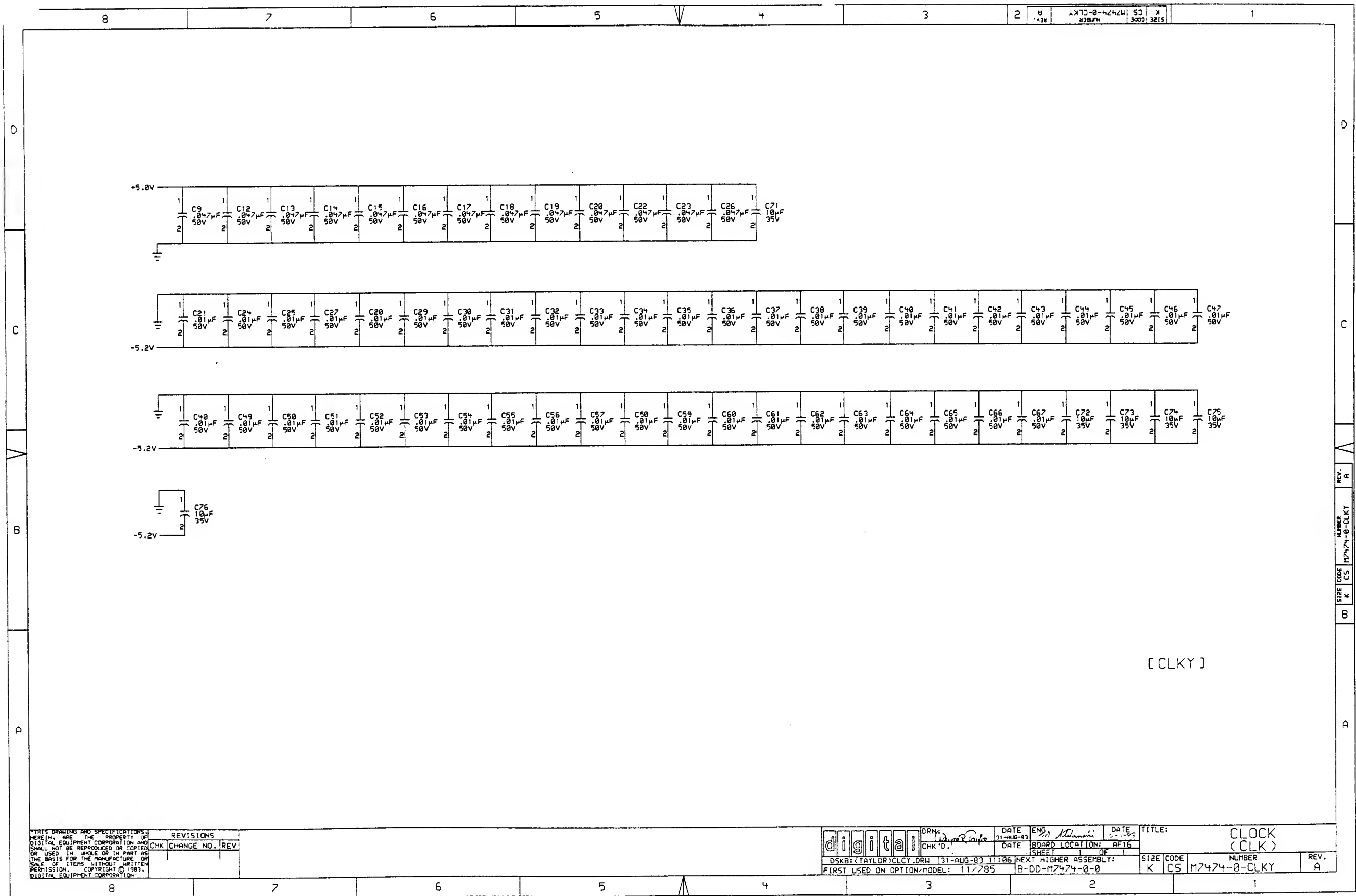


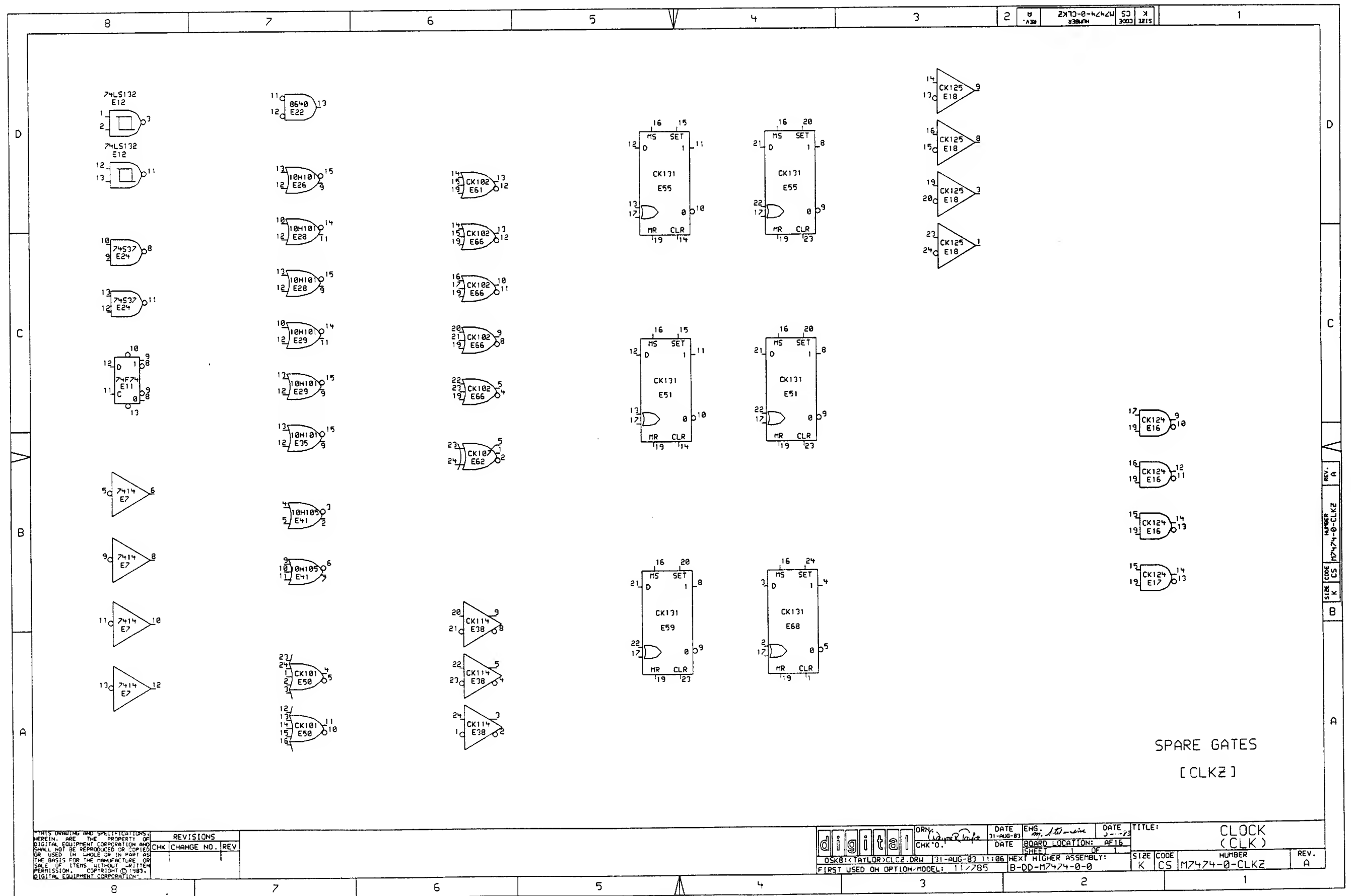












THIS DRAWING AND SPECIFICATIONS  
HEREIN, ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION OF DIGITAL EQUIPMENT  
CORPORATION.

| REVISIONS |                |
|-----------|----------------|
| CHK       | CHANGE NO. REV |
|           |                |

|                                    |           |                 |                       |             |
|------------------------------------|-----------|-----------------|-----------------------|-------------|
| <b>digital</b>                     | DATE      | ENG.            | DATE                  | TITLE:      |
|                                    | 31-AUG-83 | Mr. J. W. Smith | 3-1-83                | CLOCK (CLK) |
| CHK'D.                             | DATE      | BOARD LOCATION: | AF16                  |             |
|                                    |           | SHEET           | OF                    |             |
| OSK8:CTAYLOR>CLKZ.DRW              |           | 31-AUG-83 11:06 | NEXT HIGHER ASSEMBLY: |             |
| FIRST USED ON OPTION/MODEL: 11/785 |           | B-DD-M7474-0-0  |                       |             |
| SIZE                               | CODE      | HUMBER          | REV.                  |             |
| K                                  | CS        | M7474-0-CLKZ    | A                     |             |

| DRAWING NO.   | NO. OF SHTS. | PART NO. | DESCRIPTION       | REVISIONS            |         |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
|---|--------------|----------|-------------------|----------------------|---------|------|------|-------|--|----------|--|-------|--|--|--|-----|--|----|--|-----------|--|------|--|--------|--|--|--|------|--|--|--|--|--|--|--|--|
|   |              | M7474-00 | CLK PART REVISION | A                    | B       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| E-UA-M7474-0 0  | 1            |          | UNIT ASSEMBLY     | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-PL-M7474-0-DEP  | 4            |          | PART LIST         | A                    | B       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-PC-M7474-0-DBI  | -            |          | P.C. DATA BASE    | B                    | B       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| B-DD-5016101-C-0  | 1            |          | DRAWING DIRECTORY | A                    | B       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-DBS  | 1            |          | SUD DATA BASE     | A                    | B       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKA   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKB   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKC   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKD   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKE   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKF   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKH   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKJ   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKL   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKM   | 1            |          | SCHEMATIC         | A                    | B       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKN   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKP   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKR   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKS   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKT   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKU   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKV   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKW   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKX   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| K-CS-M7474-0-CLKY   | 1            |          | SCHEMATIC         | A                    | A       |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| NOTES:  |              |          |                   | REVISIONS            |         |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
|   |              |          |                   | DATE                 | CHG NO. | INIT | REV. |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
|   |              |          |                   | 9/83                 |         |      | A    | B     |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
|   |              |          |                   | 3/84                 |         | TWO  | 001  |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
| <div><div>THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.</div><div>COPYRIGHT©1983 DIGITAL EQUIPMENT CORPORATION</div></div> |              |          |                   | USED ON OPTION/MODEL |         |      |      | DRN   |  | 28-50-83 |  | TITLE |  |  |  | CLK |  |    |  | SIZE      |  | CODE |  | NUMBER |  |  |  | REV. |  |  |  |  |  |  |  |  |
|   |              |          |                   |                      |         |      |      | CHK'D |  | 10-4-83  |  |       |  |  |  | B   |  | DD |  | M7474-0-0 |  |      |  | B      |  |  |  |      |  |  |  |  |  |  |  |  |
|   |              |          |                   |                      |         |      |      | ENG   |  | 10-11-83 |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
|   |              |          |                   |                      |         |      |      | REC'D |  | 10-11-83 |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |
|   |              |          |                   |                      |         |      |      |       |  |          |  |       |  |  |  |     |  |    |  |           |  |      |  |        |  |  |  |      |  |  |  |  |  |  |  |  |

[illegible]



AUTOMATED BY PRTLST.40(50)

PARTS LIST

SHEET A1 OF A2

| LINE ITEM |    | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                    | QTY | PER VARIATION | REFERENCE DESIGNATOR            |
|-----------|----|------------------|-------------|---------|--------------------------------|-----|---------------|---------------------------------|
|           |    |                  |             |         | VARIATION REVISION LEVEL:      | 00  |               |                                 |
|           |    |                  |             |         |                                | B1  |               |                                 |
| 1         | 1  | D-MD-5016102-0-0 | 5016102-01  |         | ETCH CIRCUIT BOARD             | 1   |               |                                 |
| 2         | 2  |                  | 2304382-00  |         | B2-03                          | 1   |               | E172                            |
| 3         | 3  |                  | 2304482-00  |         | B2-03                          | 1   |               | E173                            |
| 4         | 4  |                  | 2304582-00  |         | B2-03                          | 1   |               | E155                            |
| 5         | 5  |                  | 2304682-00  |         | B2-03                          | 1   |               | E139                            |
| 6         | 6  |                  | 2304782-00  |         | B2-03                          | 1   |               | E105                            |
| 7         | 7  |                  | 2304882-00  |         | B2-03                          | 1   |               | E122                            |
| 8         | 8  |                  | 2304982-00  |         | B2-03                          | 1   |               | E89                             |
| 9         | 9  |                  | 2305082-00  |         | B2-03                          | 1   |               | E73                             |
| 10        | 10 |                  | 2305182-00  |         | B2-03                          | 1   |               | E55                             |
| 11        | 11 |                  | 2305282-00  |         | B2-03                          | 1   |               | E38                             |
| 12        | 12 |                  | 2305382-00  |         | B2-03                          | 1   |               | E21                             |
| 13        | 13 |                  | 2305482-00  |         | B2-03                          | 1   |               | E4                              |
| 14        | 14 |                  | 2305582-00  |         | B2-03                          | 1   |               | E190                            |
| 15        | 15 |                  | 1920572-01  |         | 74F244 BUFFER/LINE DRIVER,0    | 9   |               | E27,E44,E61,E94,E110,E128,E161, |
|           |    |                  |             |         |                                |     | CONT          | E177,E193                       |
| 16        | 16 |                  | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS | 1   |               |                                 |
| 17        | 17 |                  | 9000024-01  |         | EYELET,ROLLED 0.1210DX0.192    | 12  |               |                                 |
| 18        | 18 |                  | 1017472-00  |         | 10 MFD 35V +75-10% AL EL       | 13  |               | C200-C212                       |
| 19        | 19 |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF           | 2   |               | R203,R204                       |
| 20        | 20 |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF           | 2   |               | R201,R202                       |
| 21        | 21 |                  | 1300365-00  |         | 1.0 K .25 W 5.0 % CF           | 1   |               | R200                            |
| 22        | 22 |                  | 1301775-00  |         | B20.0 .25 W 5.0 % CF           | 5   |               | R121,R123,R125,R127,R129        |
| 23        | 23 |                  | 1300295-00  |         | 330.0 .25 W 5.0 % CF           | 5   |               | R120,R122,R124,R126,R128        |
| 24        | 24 |                  | 1300229-00  |         | 100.0 .25 W 5.0 % CF           | 72  |               | R1-R72                          |
| 25        | 25 |                  | 1921720-01  |         | 10H125 TRANSLATOR ECL TO TTL   | 1   |               | E106                            |
| 26        | 26 |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN      | 2   |               | E142,E159                       |
| 27        | 27 |                  | 1921315-01  |         | 74F86 EXCLUSIVE OR GATE,QU     | 1   |               | E192                            |
| 28        | 28 |                  | 1921318-01  |         | 74F151 MUX,B-IN                | 1   |               | E176                            |
| 29        | 29 |                  | 1912746-01  |         | 74S37-1BUFFER-GATE             | 1   |               | E126                            |

| REVISION HISTORY |             |     | BASIC PART NO: M7475    |  | DRN:             | S.MANSOR   | DATE: 22-JUN-83      | D I G I T A L           |      |             |     |
|------------------|-------------|-----|-------------------------|--|------------------|------------|----------------------|-------------------------|------|-------------|-----|
| ENG              | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D:           | F.GAROFALO | DATE: 27-JUN-83      | TITLE PARTS LIST        |      |             |     |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  |                  |            |                      | JOINT CONTROL STORE     |      |             |     |
| JS               | M7475-TW001 | B   | (A) 00                  |  |                  |            |                      |                         |      |             |     |
|                  |             |     | (B)                     |  | DES.ENG:         | J.STICKNEY | DATE: 22-JUN-83      | DOCUMENT NUMBER         |      |             |     |
|                  |             |     | (C)                     |  |                  |            |                      | SIZE                    | CODE | NUMBER      | REV |
|                  |             |     | (D)                     |  | RESP.ENG.:       | J.STICKNEY | DATE: 22-JUN-83      | K                       | PL   | M7475-0-DBP | B   |
|                  |             |     | (E)                     |  |                  |            |                      |                         |      |             |     |
|                  |             |     | (F)                     |  | MFG.ENG.:        | M.KRYSAK   | DATE: 25-OCT-83      | RELEASE DATE: 25-JAN-84 |      |             |     |
|                  |             |     | (H)                     |  |                  |            |                      |                         |      |             |     |
|                  |             |     | (J)                     |  | ASSEMBLY NUMBER: |            | TOP DOCUMENT NUMBER: | FILE NAME:              |      | EDIT #      |     |
|                  |             |     | (K)                     |  | E-UA-M7475-0-0   |            | B-DD-M7475-0-0       | Z3957B.PLS              |      | 9           |     |
|                  |             |     | (L)                     |  |                  |            |                      |                         |      |             |     |
|                  |             |     | (M)                     |  |                  |            |                      |                         |      |             |     |
|                  |             |     | (N)                     |  |                  |            |                      |                         |      |             |     |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."

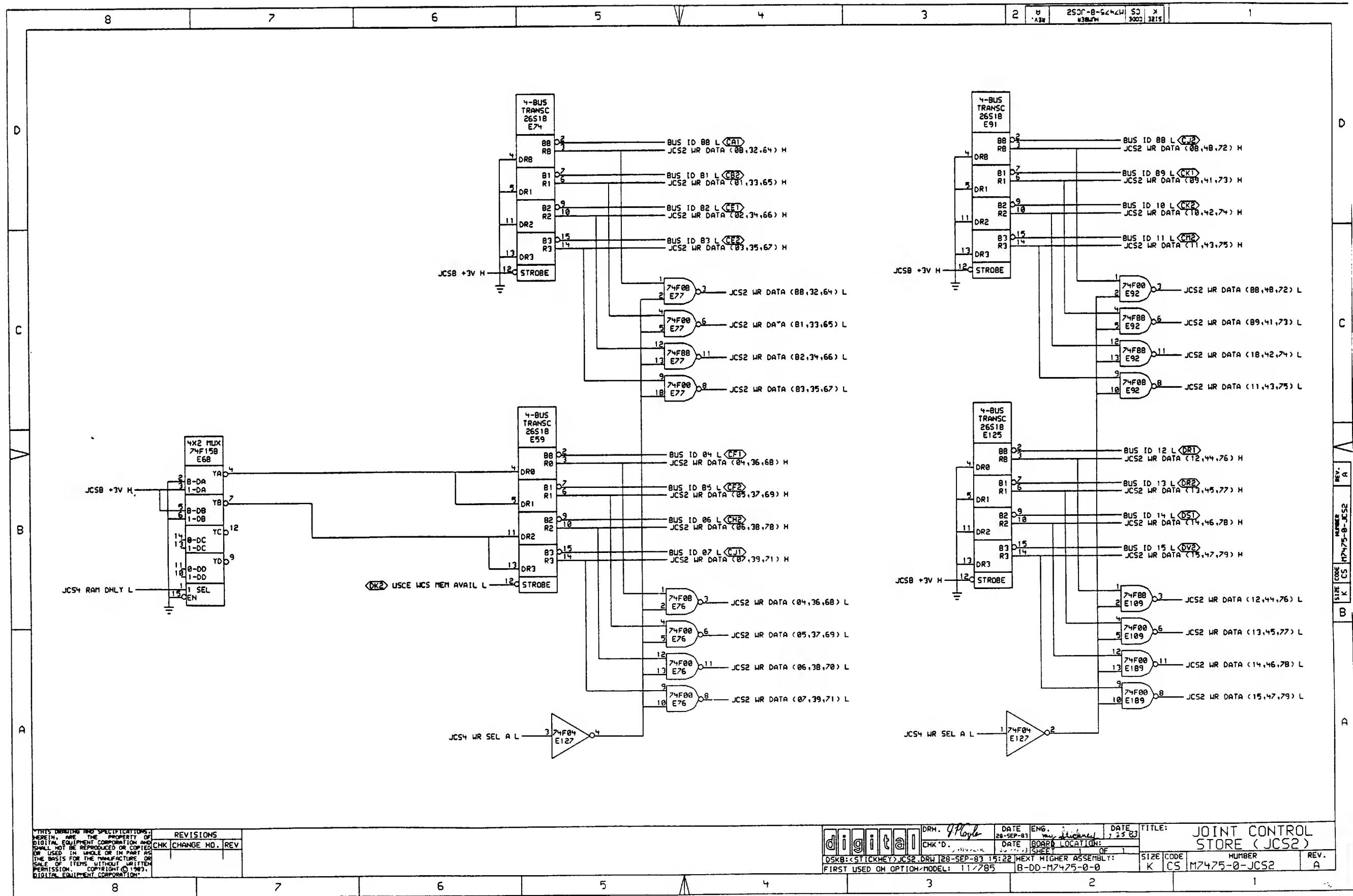


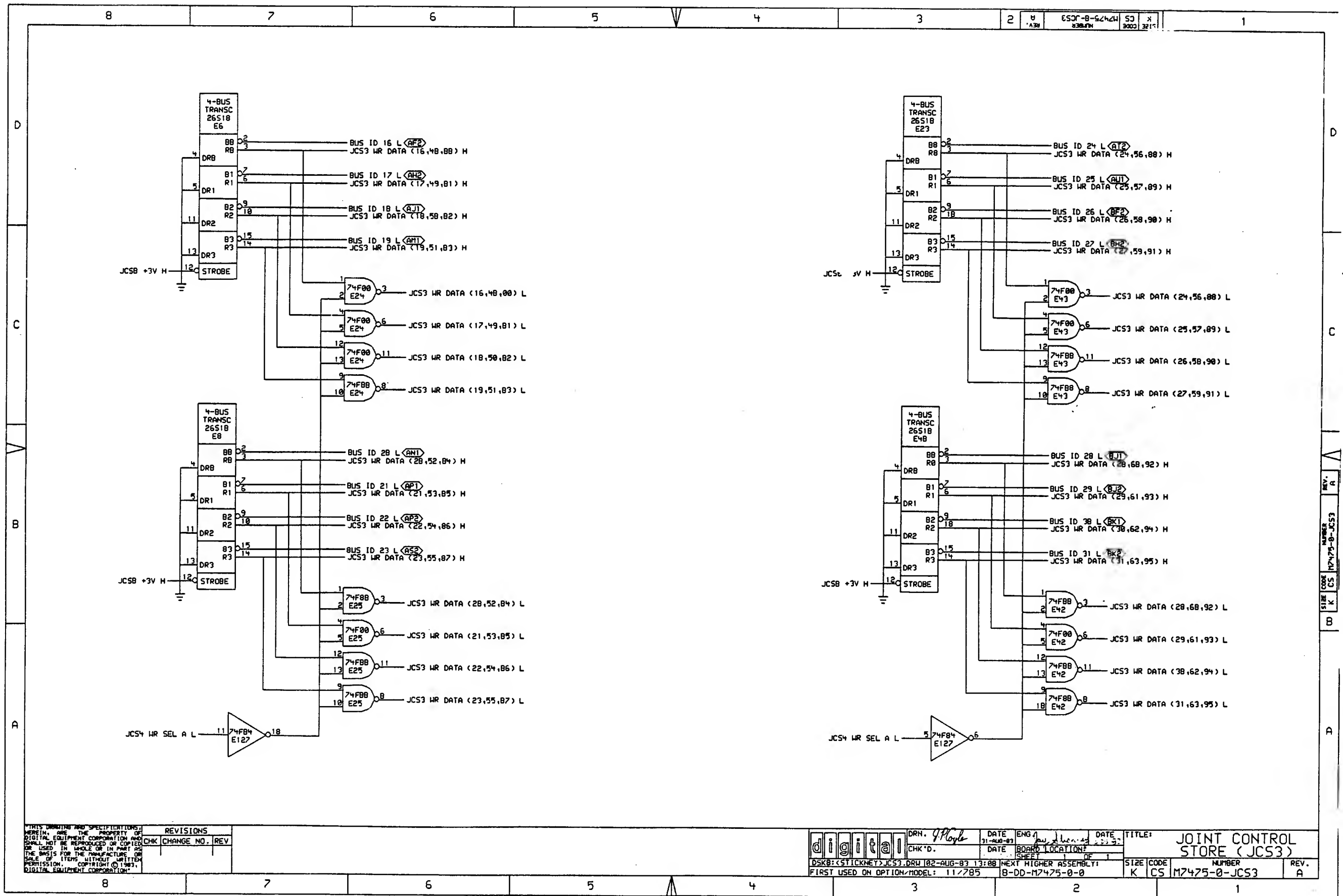
| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                 | QTY | PER VARIATION | REFERENCE DESIGNATOR             |
|------|------|--------------|-------------|---------|-----------------------------|-----|---------------|----------------------------------|
|      |      |              |             |         |                             |     |               |                                  |
|      |      |              |             |         | VARIATION REVISION LEVEL:   | 00  |               |                                  |
|      |      |              |             |         |                             | B1  |               |                                  |
| 30   | 30   |              | 1921307-01  |         | 74F04 HEX INVERTER          | 2   |               | E127,E143                        |
| 31   | 31   |              | 1913788-00  |         | 26S10 TRANSCEIVER,BUS,QUA   | 8   |               | E6,E8,E23,E40,E59,E74,E91,E125   |
| 32   | 32   |              | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN   | 12  |               | E24-E26,E42,E43,E76,E77,E92,E93, |
|      |      |              |             |         |                             |     | CONT          | E109,E158,E160                   |
| 33   | 33   |              | 1921332-01  |         | 74F280 PARITY GEN/CHECK,9-B | 16  |               | E5,E7,E22,E39,E41,E56,E58,E75,   |
|      |      |              |             |         |                             |     | CONT          | E90,E107,E108,E123,E140,E157,    |
|      |      |              |             |         |                             |     | CONT          | E174,E191                        |
| 34   | 34   |              | 2114523-03  |         | 2147H-1 4K MOS RAM 35NS 8   | 99  |               | E9-E17,E28-E35,E45-E52,E62-E69,  |
|      |      |              |             |         |                             |     | CONT          | E78-E86,E95-E102,E111-E118,      |
|      |      |              |             |         |                             |     | CONT          | E129-E136,E144-E152,E162-E169,   |
|      |      |              |             |         |                             |     | CONT          | E178-E185,E194-E201              |
| 35   | 35   |              | 1921008-01  |         | 74F240 BUFFER/LINE DRIVER,I | 29  |               | E1,E2,E18-E20,E36,E37,E53,E54,   |
|      |      |              |             |         |                             |     | CONT          | E70-E72,E87,E88,E103,E104,       |
|      |      |              |             |         |                             |     | CONT          | E119-E121,E137,E138,E153,E154,   |
|      |      |              |             |         |                             |     | CONT          | E170,E171,E186-E189              |
| 36   | 36   |              | 1921321-01  |         | 74F158 MUX,QUAD,2-IN        | 4   |               | E60,E124,E141,E175               |
| 37   | 37   |              | 1012784-00  | .047    | MFD 50V +80-20% CER         | 131 |               | C300-C430                        |
| 38   | 38   |              | 1013466-06  | 100.0   | MMF 50V 5% CER              | 72  |               | C1-C72                           |
| 39   | 39   |              | 1215006-04  |         | SKT,IC 20PIN DIP TIN SOLD   | 13  |               | XE4,XE21,XE38,XE55,XE73,XE89,    |
|      |      |              |             |         |                             |     | CONT          | XE105,XE122,XE139,XE155,XE172,   |
|      |      |              |             |         |                             |     | CONT          | XE173,XE190                      |

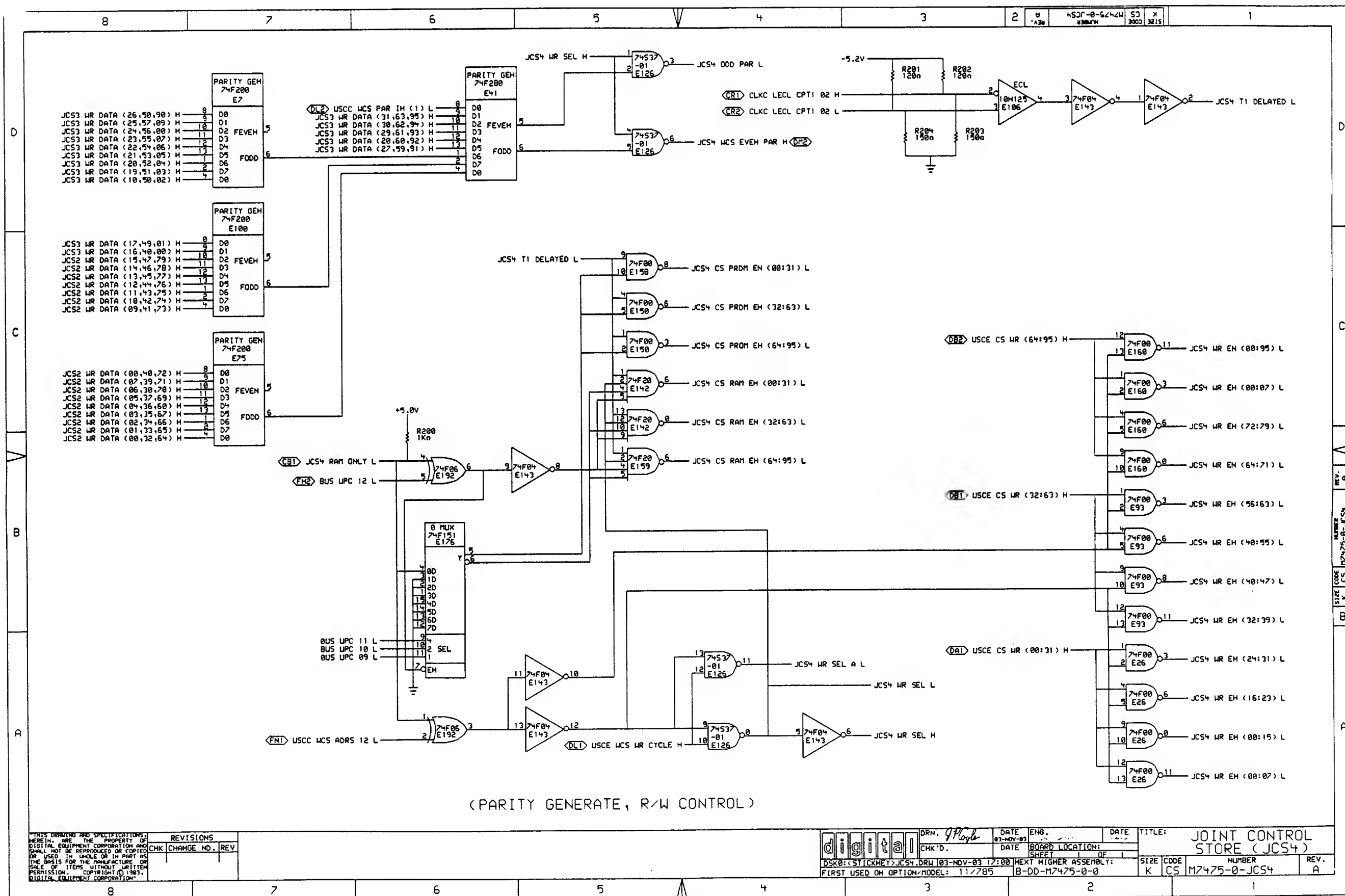
40 NOTE: E3,E57,E156 ARE SPARE I.C. LOCATIONS  
41 NOTE: ENGINEERING OPTION, DO NOT INSTALL C73-C111,R73-R111.

|   |   |   |   |   |   |   |       |                |      |      |                 |     |
|---|---|---|---|---|---|---|-------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   |       |                | K    | PL   | M7475-0-DBP     | B   |



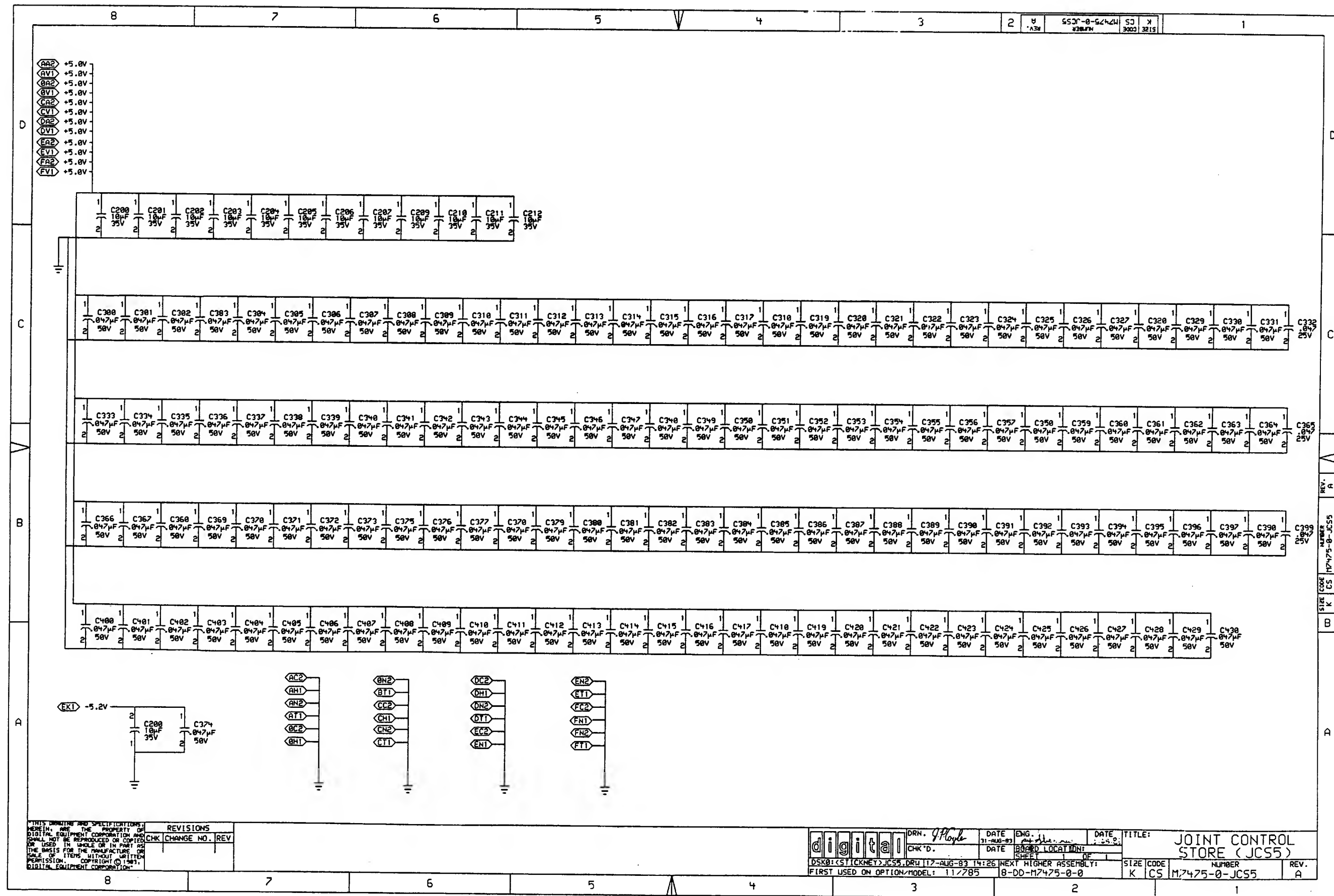






| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|  |                         |                |                 |              |                            |
|--|-------------------------|----------------|-----------------|--------------|----------------------------|
| digital  | DRN. <i>J. P. Doyle</i> | DATE 03-NOV-83 | ENG.            | DATE         | TITLE                      |
|  | CHK'D.                  | DATE           | BOARD LOCATION: | SHEET 1 OF 1 | JOINT CONTROL STORE (JCS4) |
| DSK0: (STICKMEY) JCS4.DRW 03-NOV-83 17:00 NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0 |                         |                |                 |              | SIZE CODE NUMBER REV.      |
| FIRST USED ON OPTION/MODEL: 11/785   |                         |                |                 |              | K CS M7475-0-JCS4 A        |







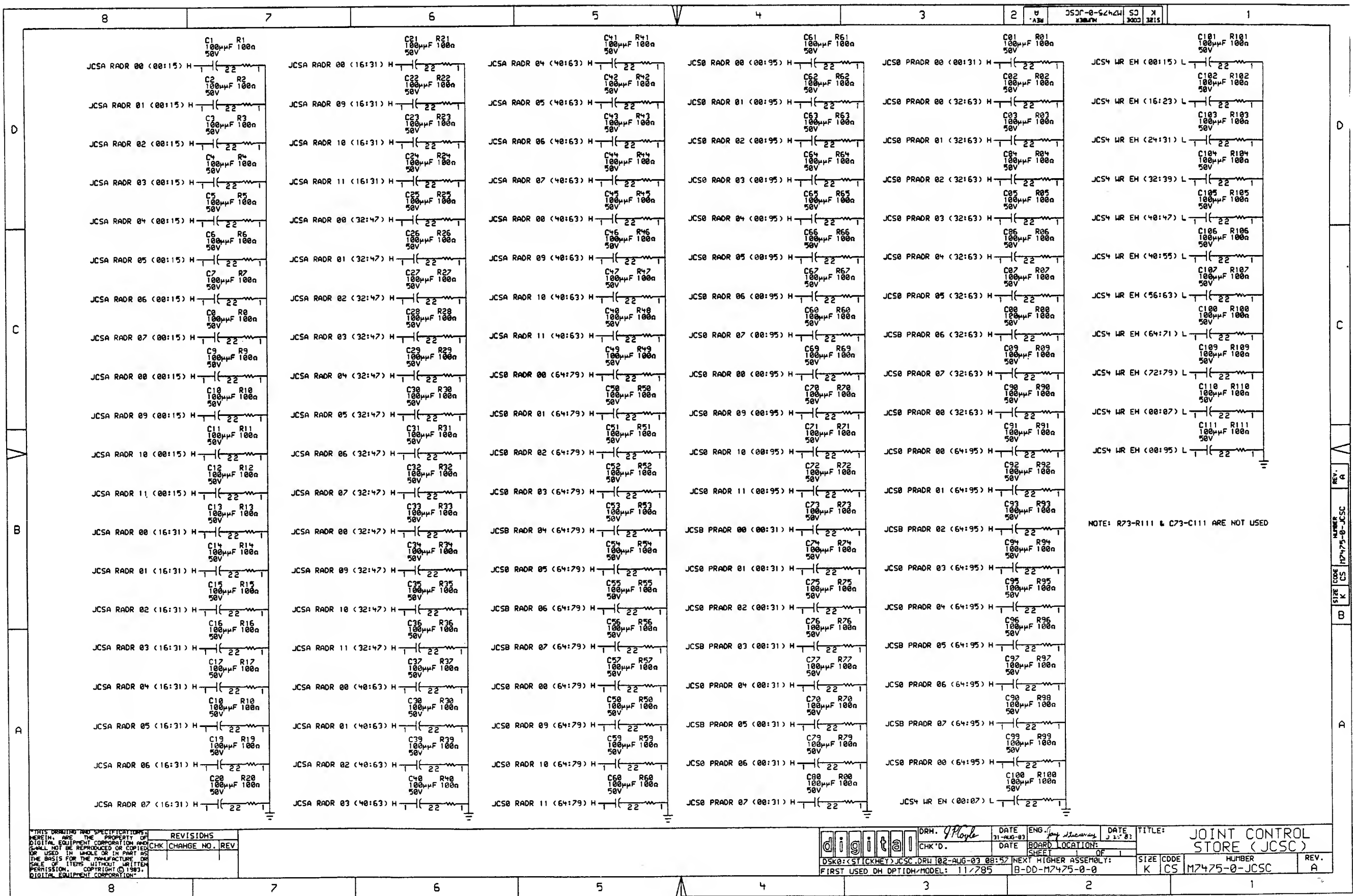


|  |              |                        |             |                   |                |             |   |                |
|--|--------------|------------------------|-------------|-------------------|----------------|-------------|---|----------------|
| 8  | 7            | 6                      | 5           | 4                 | 3              | 2           | 1 |                |
| SIGNAL NAME  |              | PAGE NUMBER(S)         | SIGNAL NAME |                   | PAGE NUMBER(S) | SIGNAL NAME |   | PAGE NUMBER(S) |
| JCSB PRADR 00 (88:31) H  | JCSC,0,B,E   | JCSB RADR 11 (88:95) H | JCSC,0,B,Y  | JCSU RAM OUT 49 L | JCSH,U         |             |   |                |
| JCSB PRADR 00 (32:63) H  | JCSC,0,F,H   | JCSM RAM OUT 00 L      | JCS0,M      | JCSU RAM OUT 50 L | JCSH,U         |             |   |                |
| JCSB PRADR 00 (64:95) H  | JCSC,0,J,K,L | JCSM RAM OUT 01 L      | JCS0,M      | JCSU RAM OUT 51 L | JCSH,U         |             |   |                |
| JCSB PRADR 01 (00:31) H  | JCSC,0,B,E   | JCSM RAM OUT 02 L      | JCS0,M      | JCSU RAM OUT 52 L | JCSH,U         |             |   |                |
| JCSB PRADR 01 (32:63) H  | JCSC,0,F,H   | JCSM RAM OUT 03 L      | JCS0,M      | JCSU RAM OUT 53 L | JCSH,U         |             |   |                |
| JCSB PRADR 01 (64:95) H  | JCSC,0,J,K,L | JCSM RAM OUT 04 L      | JCS0,M      | JCSU RAM OUT 54 L | JCSH,U         |             |   |                |
| JCSB PRADR 02 (00:31) H  | JCSC,0,B,E   | JCSM RAM OUT 05 L      | JCS0,M      | JCSU RAM OUT 55 L | JCSH,U         |             |   |                |
| JCSB PRADR 02 (32:63) H  | JCSC,0,F,H   | JCSM RAM OUT 06 L      | JCS0,M      | JCSV RAM OUT 56 L | JCSH,V         |             |   |                |
| JCSB PRADR 02 (64:95) H  | JCSC,0,J,K,L | JCSM RAM OUT 07 L      | JCS0,M      | JCSV RAM OUT 57 L | JCSH,V         |             |   |                |
| JCSB PRADR 03 (00:31) H  | JCSC,0,B,E   | JCSM RAM OUT 08 L      | JCS0,M      | JCSV RAM OUT 58 L | JCSH,V         |             |   |                |
| JCSB PRADR 03 (32:63) H  | JCSC,0,F,H   | JCSM RAM OUT 09 L      | JCS0,M      | JCSV RAM OUT 59 L | JCSH,V         |             |   |                |
| JCSB PRADR 03 (64:95) H  | JCSC,0,J,K,L | JCSM RAM OUT 10 L      | JCS0,M      | JCSV RAM OUT 60 L | JCSH,V         |             |   |                |
| JCSB PRADR 04 (88:31) H  | JCSC,0,B,E   | JCSM RAM OUT 11 L      | JCS0,M      | JCSV RAM OUT 61 L | JCSH,V         |             |   |                |
| JCSB PRADR 04 (32:63) H  | JCSC,0,F,H   | JCSM RAM OUT 12 L      | JCS0,M      | JCSV RAM OUT 62 L | JCSH,V         |             |   |                |
| JCSB PRADR 04 (64:95) H  | JCSC,0,J,K,L | JCSM RAM OUT 13 L      | JCS0,M      | JCSV RAM OUT 63 L | JCSH,V         |             |   |                |
| JCSB PRADR 05 (88:31) H  | JCSC,0,B,E   | JCSM RAM OUT 14 L      | JCS0,M      | JCSW RAM OUT 64 L | JCSJ,W         |             |   |                |
| JCSB PRADR 05 (32:63) H  | JCSC,0,F,H   | JCSM RAM OUT 15 L      | JCS0,M      | JCSW RAM OUT 65 L | JCSJ,W         |             |   |                |
| JCSB PRADR 05 (64:95) H  | JCSC,0,J,K,L | JCSM RAM OUT 16 L      | JCS0,M      | JCSW RAM OUT 66 L | JCSJ,W         |             |   |                |
| JCSB PRADR 06 (88:31) H  | JCSC,0,B,E   | JCSM RAM OUT 17 L      | JCS0,M      | JCSW RAM OUT 67 L | JCSJ,W         |             |   |                |
| JCSB PRADR 06 (32:63) H  | JCSC,0,F,H   | JCSM RAM OUT 18 L      | JCS0,M      | JCSW RAM OUT 68 L | JCSJ,W         |             |   |                |
| JCSB PRADR 06 (64:95) H  | JCSC,0,J,K,L | JCSP RAM OUT 19 L      | JCS0,M      | JCSW RAM OUT 69 L | JCSJ,W         |             |   |                |
| JCSB PRADR 07 (88:31) H  | JCSC,0,B,E   | JCSP RAM OUT 20 L      | JCS0,M      | JCSW RAM OUT 70 L | JCSJ,W         |             |   |                |
| JCSB PRADR 07 (32:63) H  | JCSC,0,F,H   | JCSP RAM OUT 21 L      | JCS0,M      | JCSW RAM OUT 71 L | JCSJ,W         |             |   |                |
| JCSB PRADR 07 (64:95) H  | JCSC,0,J,K,L | JCSP RAM OUT 22 L      | JCS0,M      | JCSX RAM OUT 72 L | JCSJ,X         |             |   |                |
| JCSB PRADR 08 (00:31) H  | JCSC,0,B,E   | JCSP RAM OUT 23 L      | JCS0,M      | JCSX RAM OUT 73 L | JCSJ,X         |             |   |                |
| JCSB PRADR 08 (32:63) H  | JCSC,0,F,H   | JCSP RAM OUT 24 L      | JCS0,M      | JCSX RAM OUT 74 L | JCSJ,X         |             |   |                |
| JCSB PRADR 08 (64:95) H  | JCSC,0,J,K,L | JCSP RAM OUT 25 L      | JCS0,M      | JCSX RAM OUT 75 L | JCSJ,X         |             |   |                |
| JCSB RADR 00 (64:79) H   | JCSC,L,W,B,X | JCSP RAM OUT 26 L      | JCS0,M      | JCSX RAM OUT 76 L | JCSJ,X         |             |   |                |
| JCSB RADR 00 (88:95) H   | JCSC,Z,B,Y   | JCSP RAM OUT 27 L      | JCS0,M      | JCSX RAM OUT 77 L | JCSJ,X         |             |   |                |
| JCSB RADR 01 (64:79) H   | JCSC,L,W,B,X | JCSP RAM OUT 28 L      | JCS0,M      | JCSX RAM OUT 78 L | JCSJ,X         |             |   |                |
| JCSB RADR 01 (88:95) H   | JCSC,Z,B,Y   | JCSR RAM OUT 29 L      | JCS0,M      | JCSX RAM OUT 79 L | JCSJ,X         |             |   |                |
| JCSB RADR 02 (64:79) H   | JCSC,L,W,B,X | JCSR RAM OUT 30 L      | JCS0,M      | JCSY RAM OUT 80 L | JCSK,Y         |             |   |                |
| JCSB RADR 02 (88:95) H   | JCSC,Z,B,Y   | JCSR RAM OUT 31 L      | JCS0,M      | JCSY RAM OUT 81 L | JCSK,Y         |             |   |                |
| JCSB RADR 03 (64:79) H   | JCSC,L,W,B,X | JCSS RAM OUT 32 L      | JCS0,M      | JCSY RAM OUT 82 L | JCSK,Y         |             |   |                |
| JCSB RADR 03 (88:95) H   | JCSC,Z,B,Y   | JCSS RAM OUT 33 L      | JCS0,M      | JCSY RAM OUT 83 L | JCSK,Y         |             |   |                |
| JCSB RADR 04 (64:79) H   | JCSC,L,W,B,X | JCSS RAM OUT 34 L      | JCS0,M      | JCSY RAM OUT 84 L | JCSK,Y         |             |   |                |
| JCSB RADR 04 (88:95) H   | JCSC,Z,B,Y   | JCSS RAM OUT 35 L      | JCS0,M      | JCSY RAM OUT 85 L | JCSK,Y         |             |   |                |
| JCSB RADR 05 (64:79) H   | JCSC,L,W,B,X | JCSS RAM OUT 36 L      | JCS0,M      | JCSY RAM OUT 86 L | JCSK,Y         |             |   |                |
| JCSB RADR 05 (88:95) H   | JCSC,Z,B,Y   | JCSS RAM OUT 37 L      | JCS0,M      | JCSY RAM OUT 87 L | JCSK,Y         |             |   |                |
| JCSB RADR 06 (64:79) H   | JCSC,L,W,B,X | JCSS RAM OUT 38 L      | JCS0,M      | JCSZ RAM OUT 88 L | JCSK,Z         |             |   |                |
| JCSB RADR 06 (88:95) H   | JCSC,Z,B,Y   | JCSS RAM OUT 39 L      | JCS0,M      | JCSZ RAM OUT 89 L | JCSK,Z         |             |   |                |
| JCSB RADR 07 (64:79) H   | JCSC,L,W,B,X | JCST RAM OUT 40 L      | JCS0,M      | JCSZ RAM OUT 90 L | JCSK,Z         |             |   |                |
| JCSB RADR 07 (88:95) H   | JCSC,Z,B,Y   | JCST RAM OUT 41 L      | JCS0,M      | JCSZ RAM OUT 91 L | JCSK,Z         |             |   |                |
| JCSB RADR 08 (64:79) H   | JCSC,L,W,X,B | JCST RAM OUT 42 L      | JCS0,M      | JCSZ RAM OUT 92 L | JCSK,Z         |             |   |                |
| JCSB RADR 08 (88:95) H   | JCSC,Z,B,Y   | JCST RAM OUT 43 L      | JCS0,M      | JCSZ RAM OUT 93 L | JCSK,Z         |             |   |                |
| JCSB RADR 09 (64:79) H   | JCSC,L,W,X,B | JCST RAM OUT 44 L      | JCS0,M      | JCSZ RAM OUT 94 L | JCSK,Z         |             |   |                |
| JCSB RADR 09 (88:95) H   | JCSC,Z,B,Y   | JCST RAM OUT 45 L      | JCS0,M      | JCSZ RAM OUT 95 L | JCSK,Z         |             |   |                |
| JCSB RADR 10 (64:79) H   | JCSC,L,W,X,B | JCST RAM OUT 46 L      | JCS0,M      | USCC MCS ADR 88 L | JCSA           |             |   |                |
| JCSB RADR 10 (88:95) H   | JCSC,Z,B,Y   | JCST RAM OUT 47 L      | JCS0,M      | USCC MCS ADR 81 L | JCSA           |             |   |                |
| JCSB RADR 11 (64:79) H   | JCSC,L,W,X,B | JCSU RAM OUT 48 L      | JCS0,M      | USCC MCS ADR 02 L | JCSA           |             |   |                |
| NOTES:<br>1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.   |              |                        |             |                   |                |             |   |                |
| THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION. |              |                        |             |                   |                |             |   |                |
| REVISIONS<br>CHK CHANGE NO. REV  |              |                        |             |                   |                |             |   |                |
| digital<br>DATE 31-AUG-83<br>CHK'D.<br>DATE 25-AUG-83<br>ENGINEER<br>BOARD LOCATION<br>OF<br>NEXT HIGHER ASSEMBLY:<br>B-DD-M7475-0-0<br>TITLE: JOINT CONTROL STORE (JCS8)<br>SIZE CODE K CS<br>NUMBER M7475-0-JCS8<br>REV. A   |              |                        |             |                   |                |             |   |                |
| 8  | 7            | 6                      | 5           | 4                 | 3              | 2           | 1 |                |









THIS DRAWING AND SPECIFICATIONS  
HEREIN, ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983  
DIGITAL EQUIPMENT CORPORATION

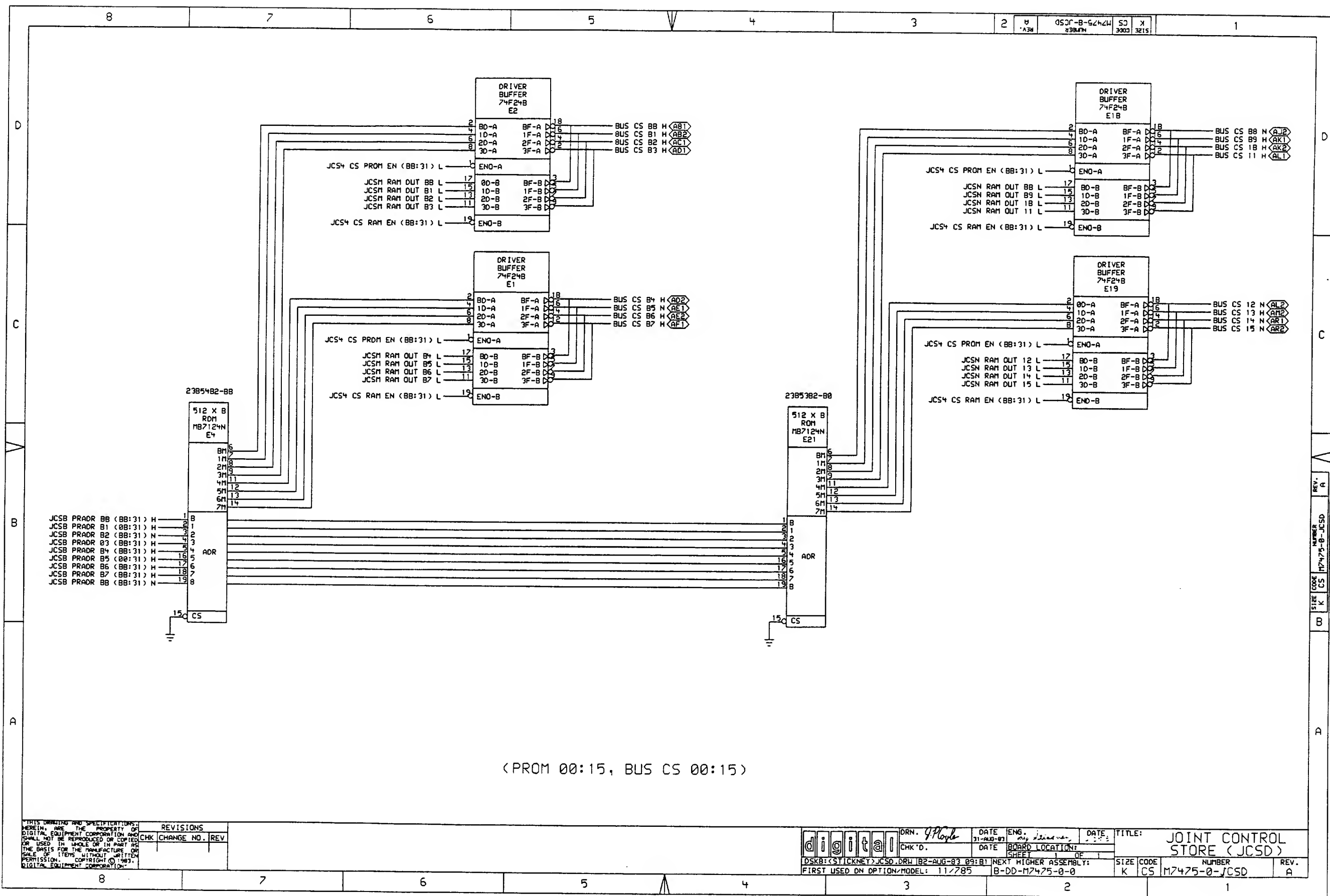
REVISIDHS  
CHK CHANGE NO. REV

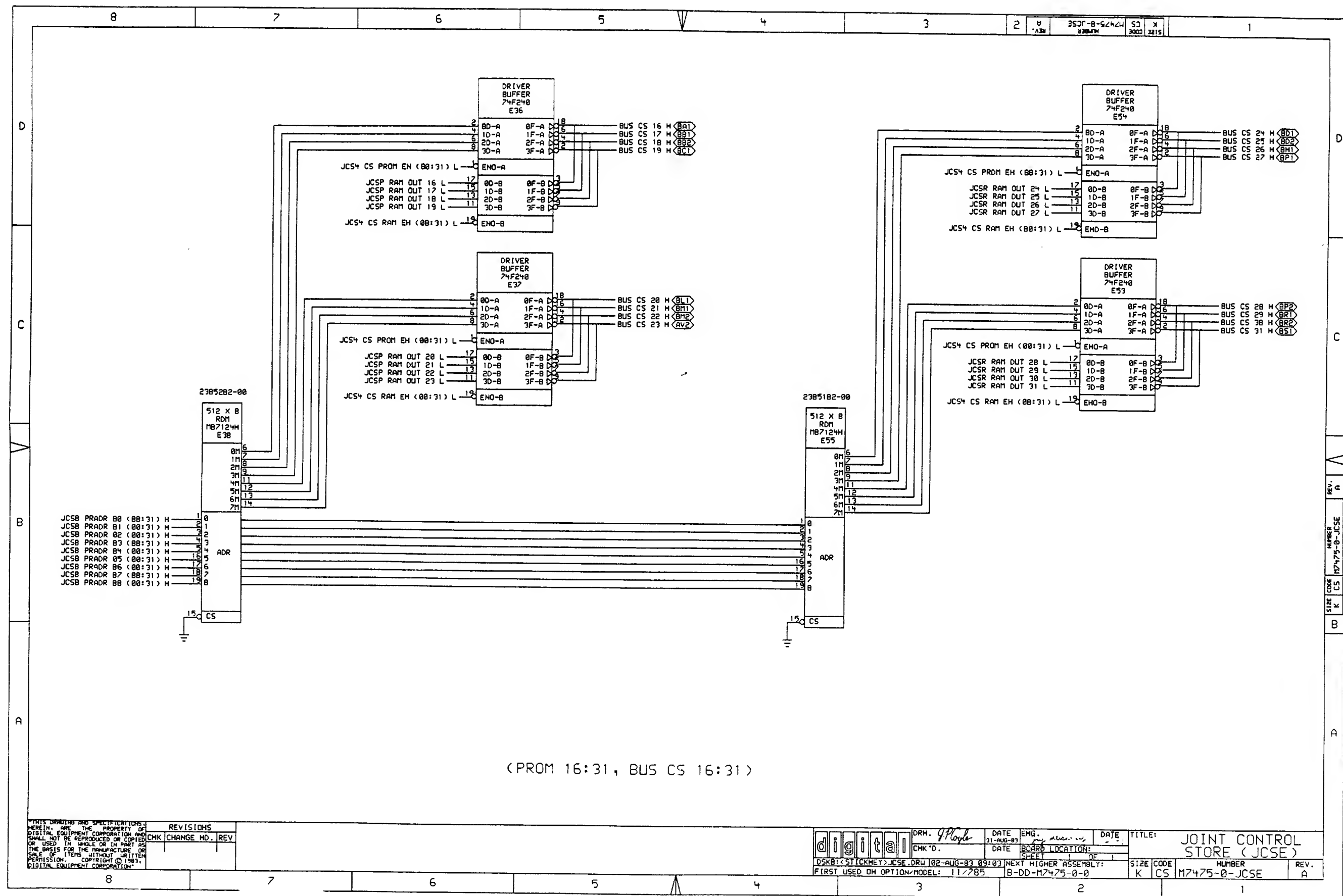
digital  
CHK'D.

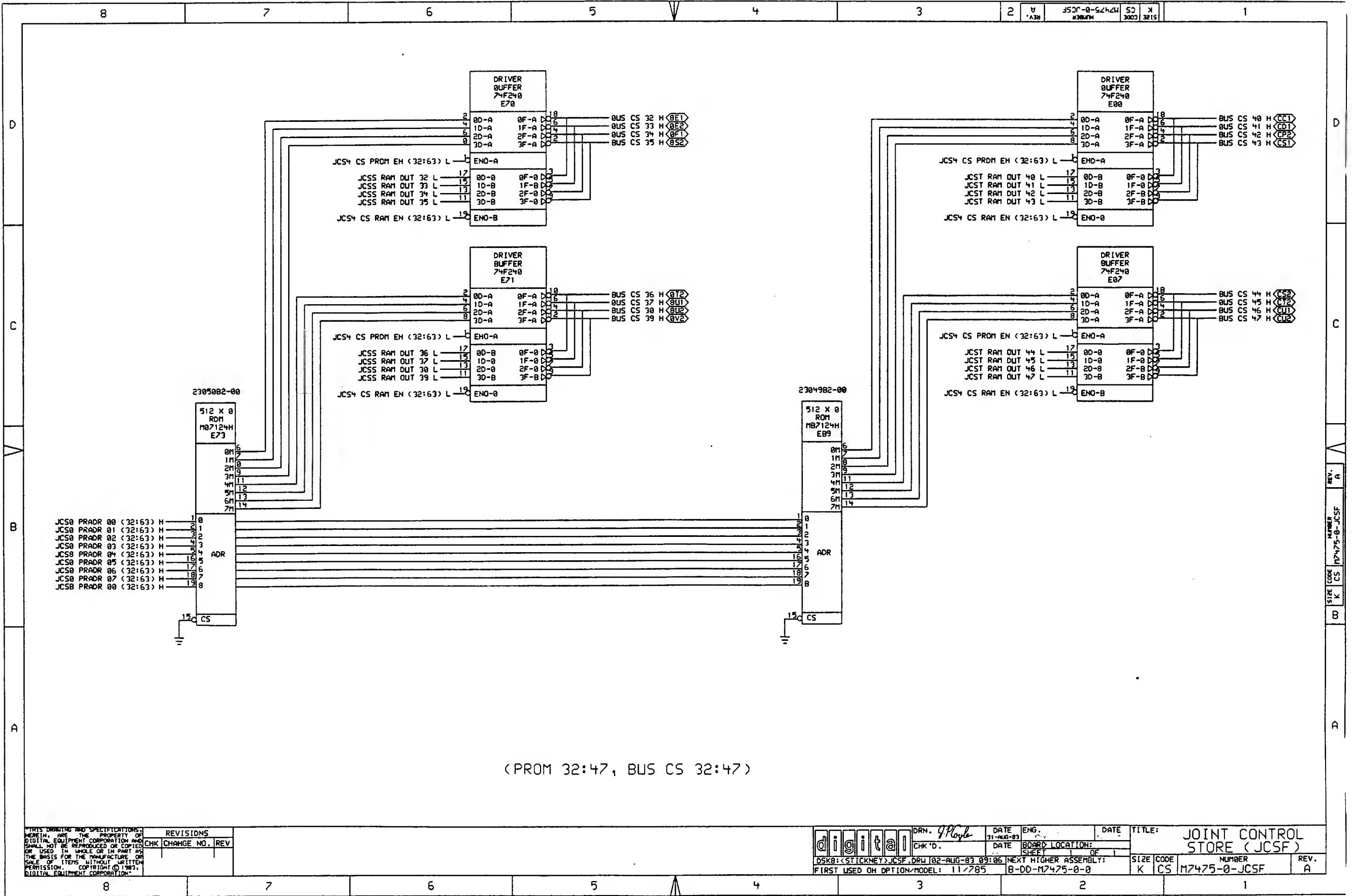
DATE 31-AUG-83  
DATE 31-AUG-83  
SHEET 1 OF 1

ENGINEER: J. P. [Signature]  
DATE 31-AUG-83  
TITLE: JOINT CONTROL STORE (JCSC)

DSK0: (STICKNEY) JCSC.DRI 02-AUG-83 08:52  
FIRST USED DM OPTIDH/MODEL: 11/785  
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0  
SIZE CODE K CS  
NUMBER M7475-0-JCSC  
REV. A





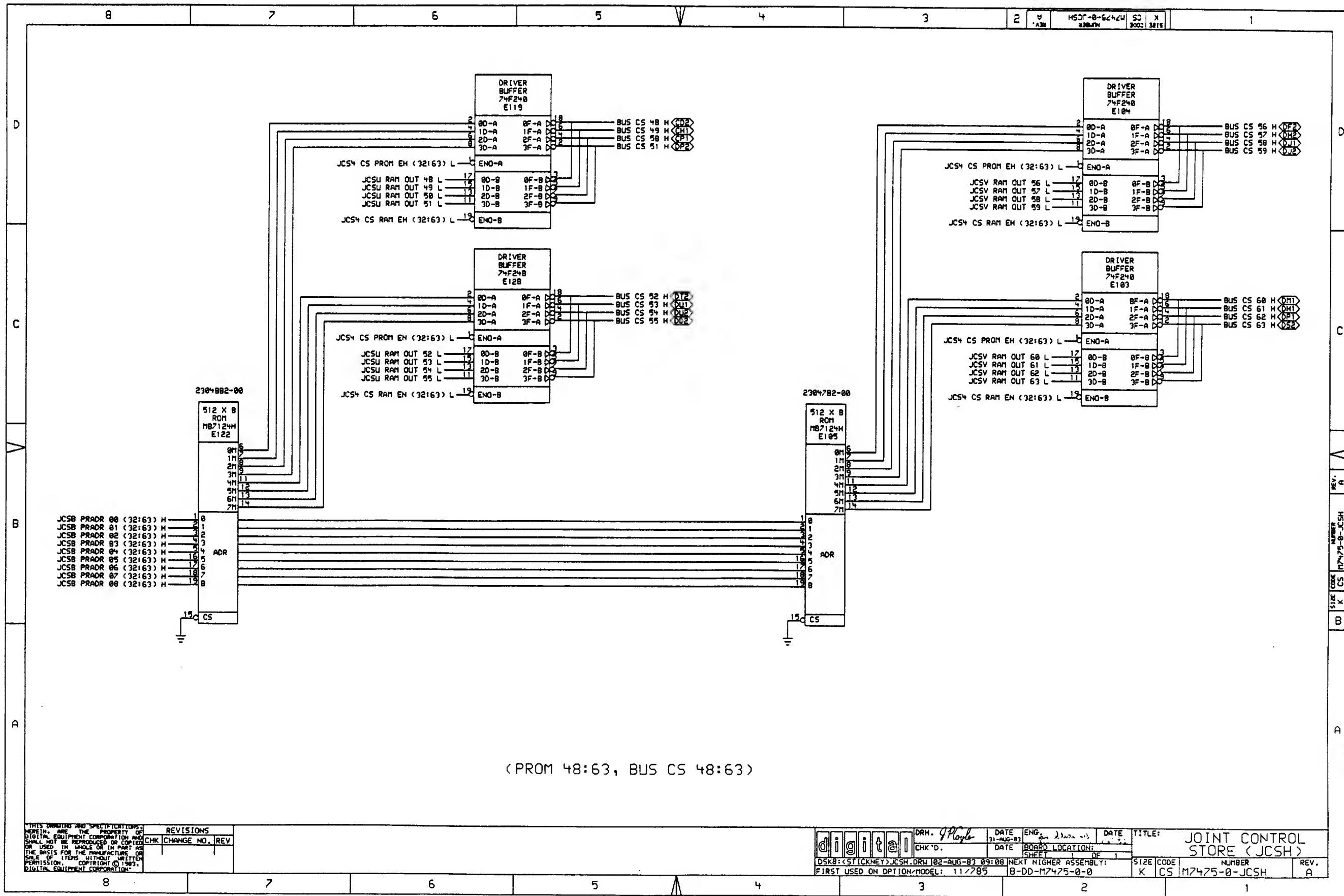


THIS DRAWING AND SPECIFICATIONS  
HEREIN, ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|  |                         |                       |                 |                |                                   |
|--|-------------------------|-----------------------|-----------------|----------------|-----------------------------------|
| digital                                    | DRN. <i>J. P. Doyle</i> | DATE 31-AUG-83        | ENG.            | DATE           | TITLE: JOINT CONTROL STORE (JCSF) |
|  | CHK'D.                  | DATE                  | BOARD LOCATION: | SHEET 1 OF 1   |                                   |
| DSK8: <STICKNEY> JCSF.DRW 102-AUG-83 09:06 |                         | NEXT HIGHER ASSEMBLY: |                 | SIZE CODE K CS | NUMBER M7475-0-JCSF               |
| FIRST USED ON OPTION/MODEL: 11/785         |                         | B-DD-M7475-0-0        |                 | REV. A         |                                   |

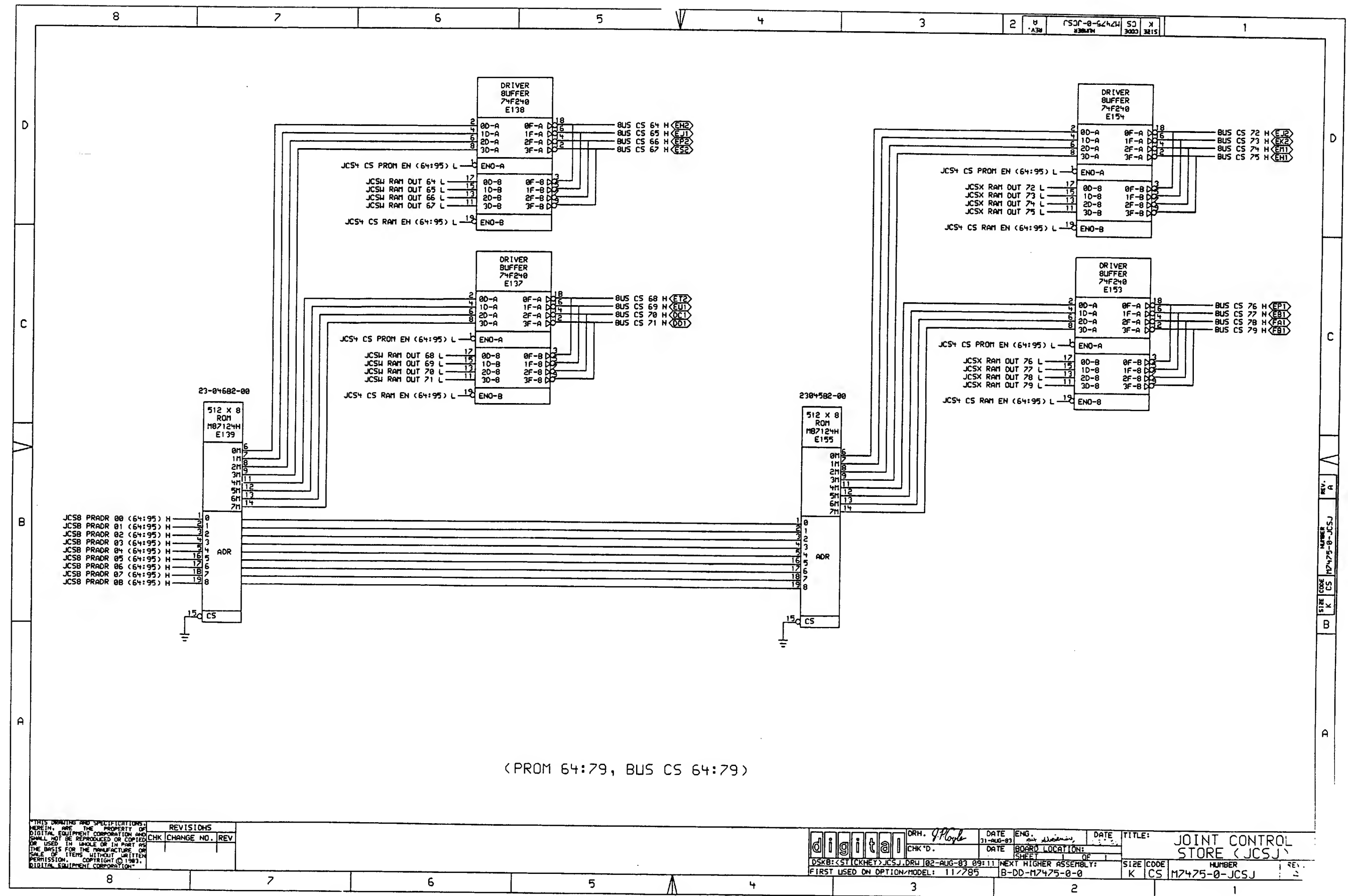


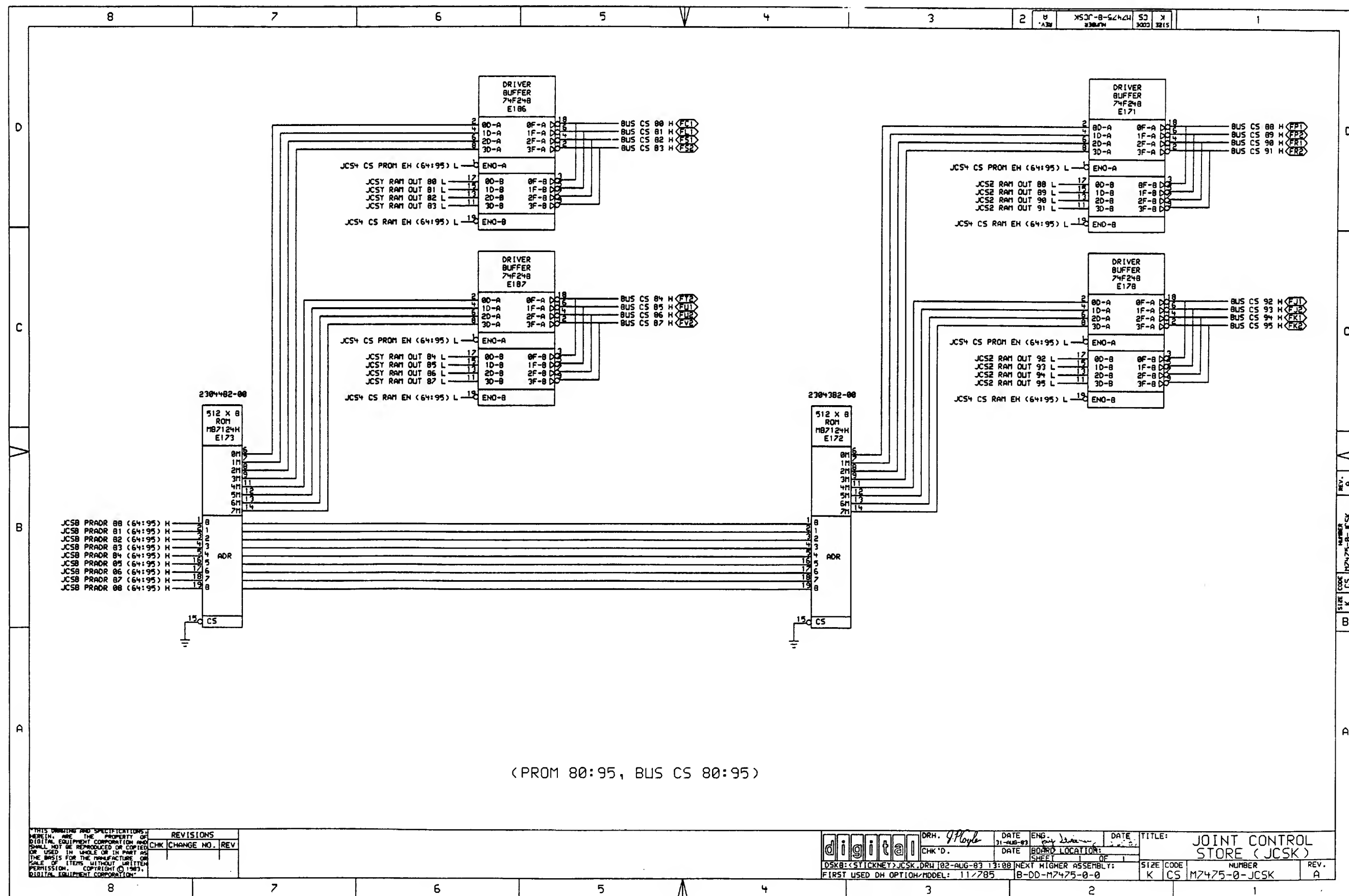


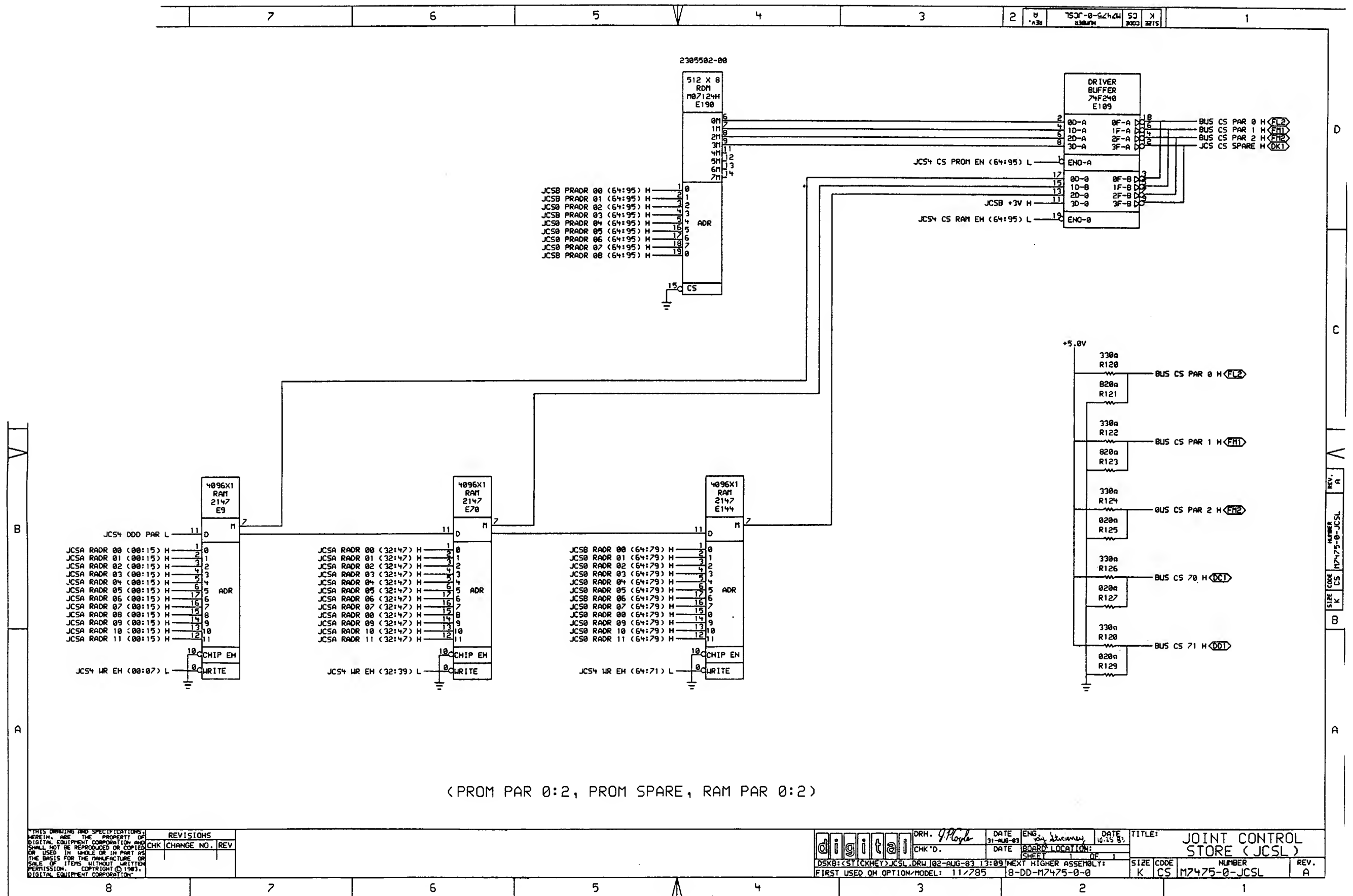
(PROM 48:63, BUS CS 48:63)

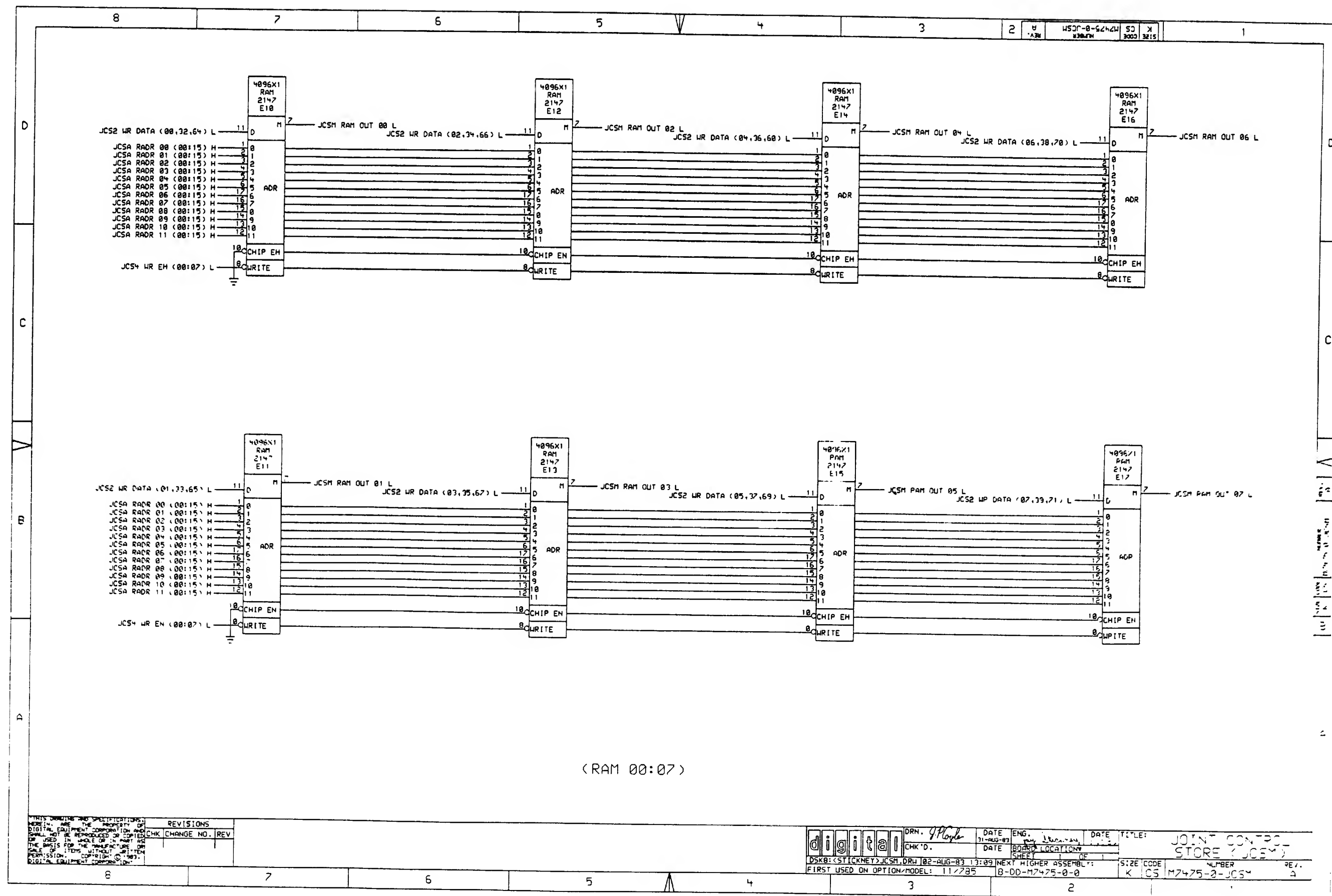
| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

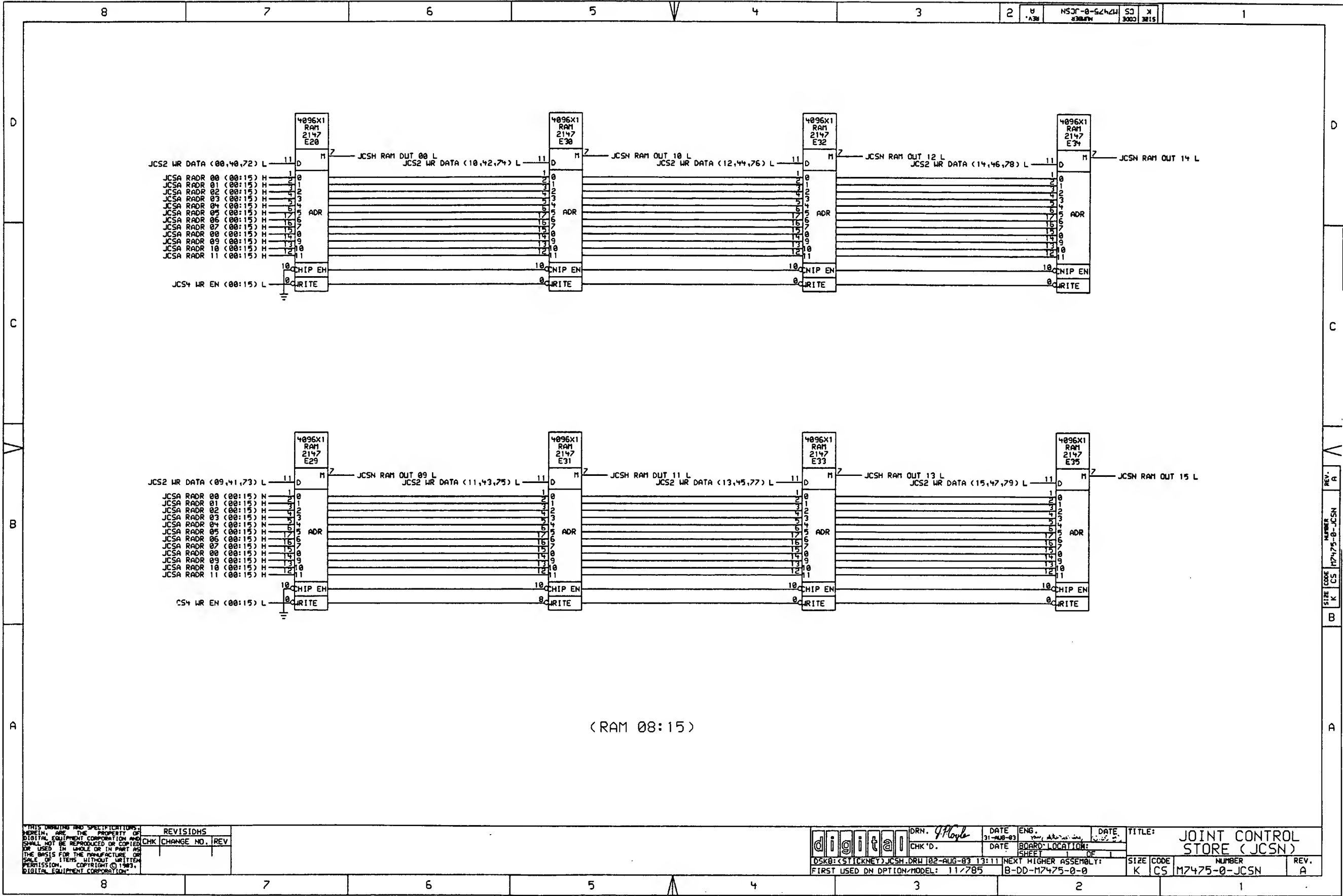
|  |                      |                |                      |              |                                   |
|--|----------------------|----------------|----------------------|--------------|-----------------------------------|
| digital  | DRW. <i>g. Doyle</i> | DATE 31-AUG-83 | ENG. <i>g. Doyle</i> | DATE         | TITLE: JOINT CONTROL STORE (JCSH) |
|  | CHK'D.               | DATE           | BOARD LOCATION:      | SHEET 1 OF 1 |                                   |
| DSK8: <STICKNEY> JCSH.DRW 102-AUG-83 09:08 NEXT HIGHER ASSEMBLY: |                      |                |                      |              | SIZE CODE K CS                    |
| FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7475-0-0                |                      |                |                      |              | NUMBER M7475-0-JCSH               |
|  |                      |                |                      |              | REV. A                            |

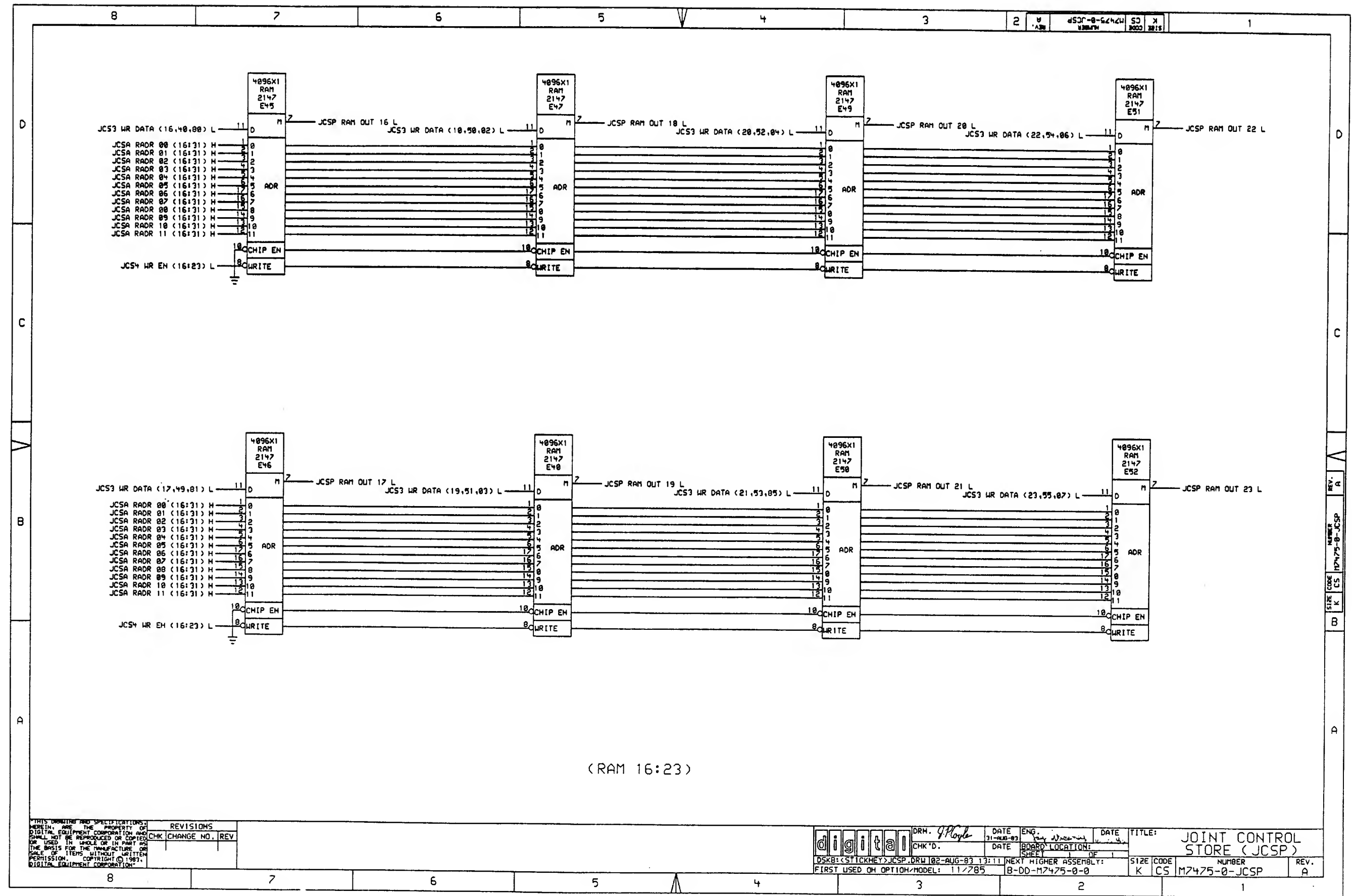






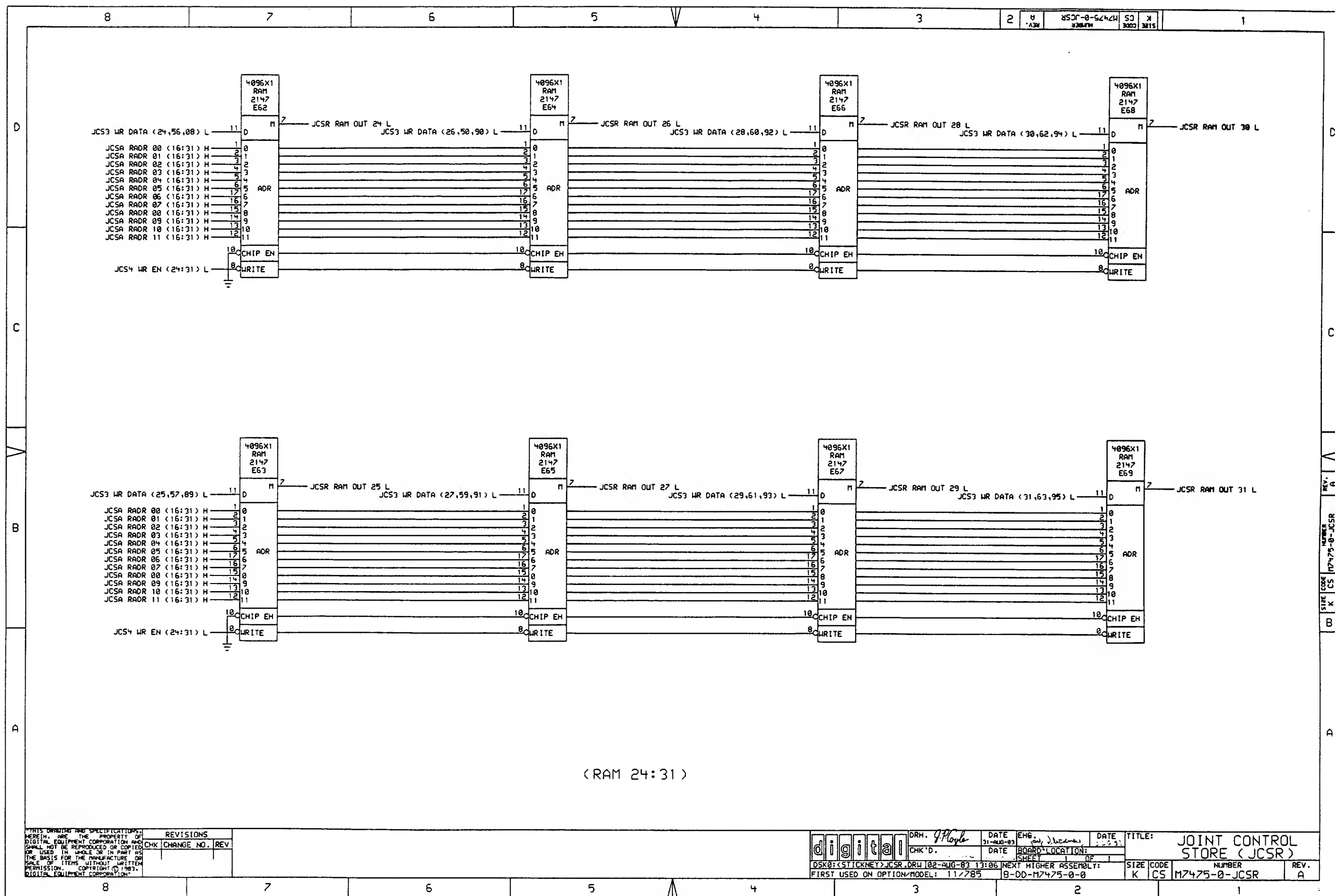






(RAM 16:23)

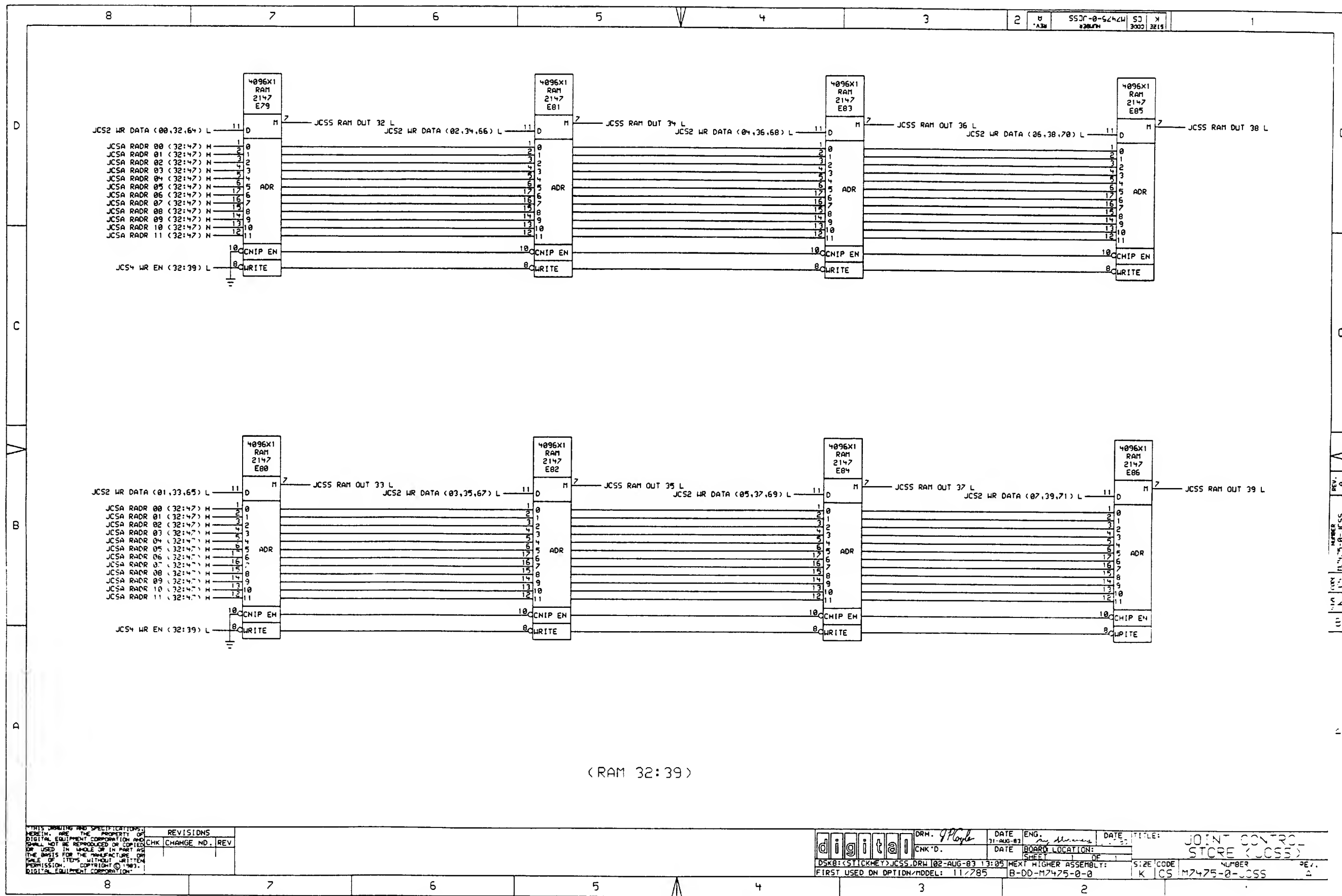
|   |  |                                 |  |   |  |                             |  |   |  |
|---|--|---------------------------------|--|---|--|-----------------------------|--|---|--|
| THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1987 DIGITAL EQUIPMENT CORPORATION. |  | REVISIONS<br>CHK CHANGE NO. REV |  | digital<br>DRH. J. P. H. 31-AUG-83<br>CHK'D. DATE |  | DATE 31-AUG-83<br>ENG. DATE |  | TITLE: JOINT CONTROL STORE (JCSP)               |  |
| DISK: (STICKNEY) JCSP.DRW 02-AUG-83 13:11<br>FIRST USED ON OPTION/MODEL: 11/785   |  |                                 |  | NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0              |  |                             |  | SIZE CODE K CS<br>NUMBER M7475-0-JCSP<br>REV. A |  |



| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|   |                         |                                      |                         |                |                                   |
|---|-------------------------|--------------------------------------|-------------------------|----------------|-----------------------------------|
| digital                                 | DRH. <i>J. P. G. P.</i> | DATE 31-AUG-83                       | ENG. <i>J. P. G. P.</i> | DATE 31-AUG-83 | TITLE: JOINT CONTROL STORE (JCSR) |
|   | CHK'D.                  | DATE                                 | BOARD LOCATION: 1 OF 1  | DATE           |                                   |
| DSK01<STICKNEY>JCSR.DRW 02-AUG-83 13:06 |                         | NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0 |                         | SIZE CODE K CS | NUMBER M7475-0-JCSR               |
| FIRST USED ON OPTION/MODEL: 11/785      |                         |                                      |                         | REV. A         |                                   |

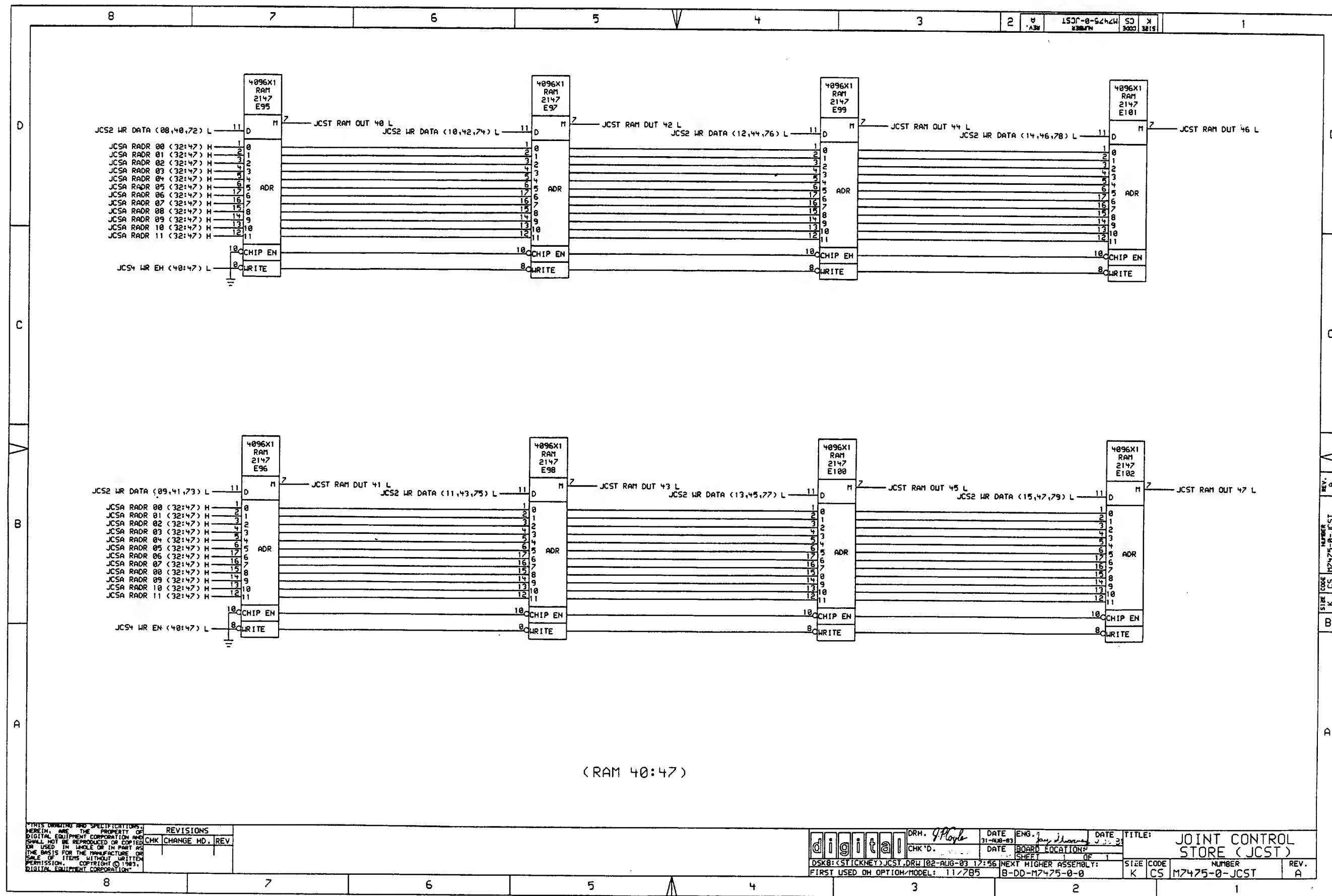




THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OF  
ANY ITEM WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983  
DIGITAL EQUIPMENT CORPORATION

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|   |                     |   |                          |                            |  |
|---|---------------------|---|--------------------------|----------------------------|--|
| <b>digital</b>                            | DRM. <i>9/10/83</i> | DATE <i>31-AUG-83</i>                       | ENG. <i>My Name</i>      | DATE                       | TITLE: <b>JOINT CONTROL STORE (JCSS)</b> |
|   | CNK'D.              | DATE  | BOARD LOCATION: <i>1</i> | SHEET <i>1</i> OF <i>1</i> | SIZE CODE <i>K</i>                       |
| DSK8:STICKMET>JCSS.DRW 102-AUG-83 13:05   |                     | NEXT HIGHER ASSEMBLY: <i>B-DD-M2475-0-8</i> |                          | NUMBER <i>2</i>            | REV. <i>2</i>                            |
| FIRST USED ON OPTION/MODEL: <i>11/785</i> |                     | NUMBER <i>CS</i> <i>M2475-0-JCSS</i>        |                          |                            |  |



THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

digital

DRH. J. P. [Signature]  
CHK'D. [Signature]

DATE 31-AUG-83  
DATE [Signature]

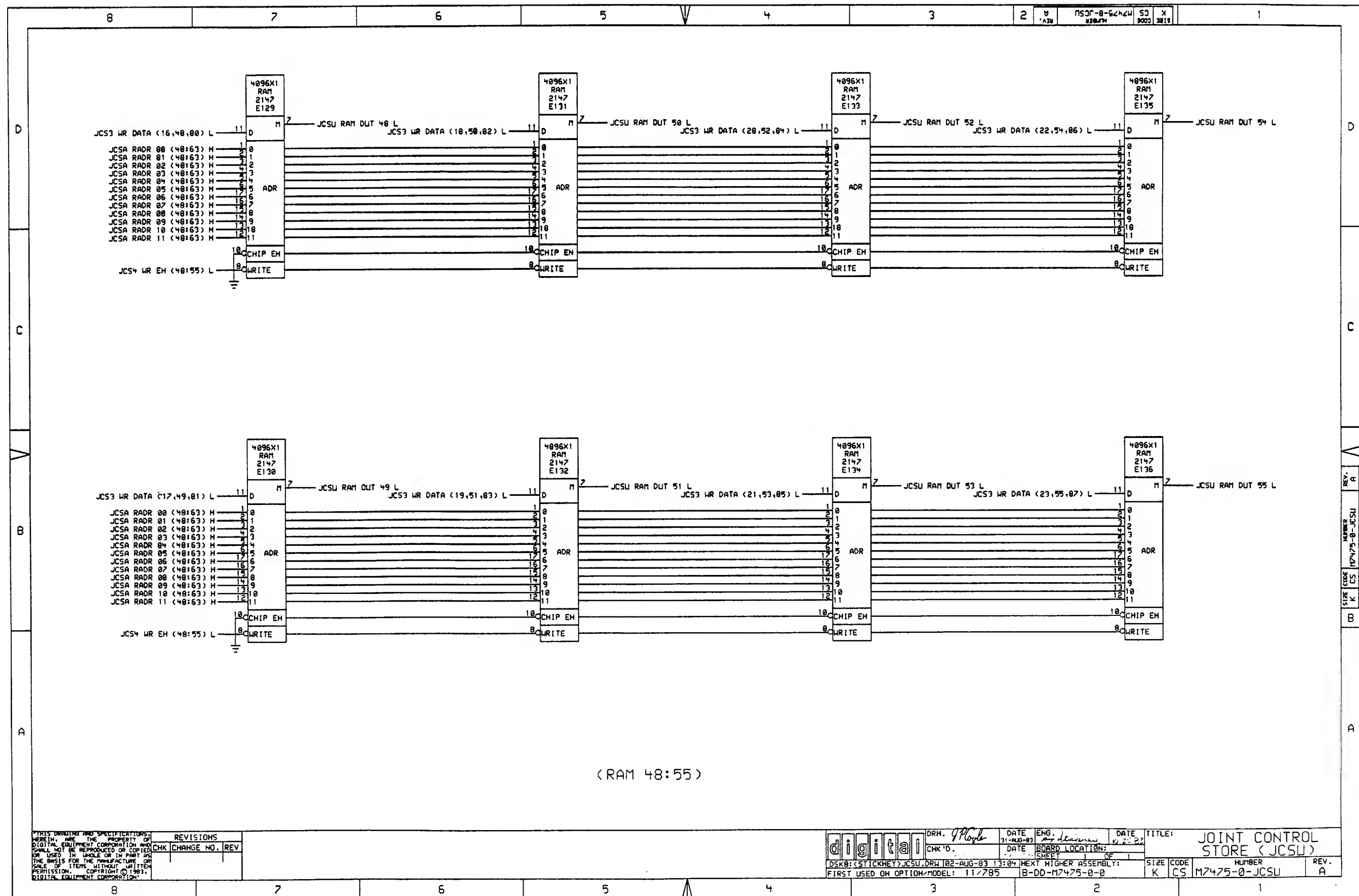
ENG. J. [Signature]  
DATE [Signature]

DATE [Signature]  
DATE [Signature]

TITLE: JOINT CONTROL  
STORE (JCST)

DSK8: (STICKNEY) JCST.DRW 102-AUG-83 17:56 NEXT HIGHER ASSEMBLY:  
FIRST USED ON OPTION/MODEL: 11/285 B-DD-M7475-0-0

SIZE CODE K CS  
NUMBER M7475-0-JCST  
REV. A

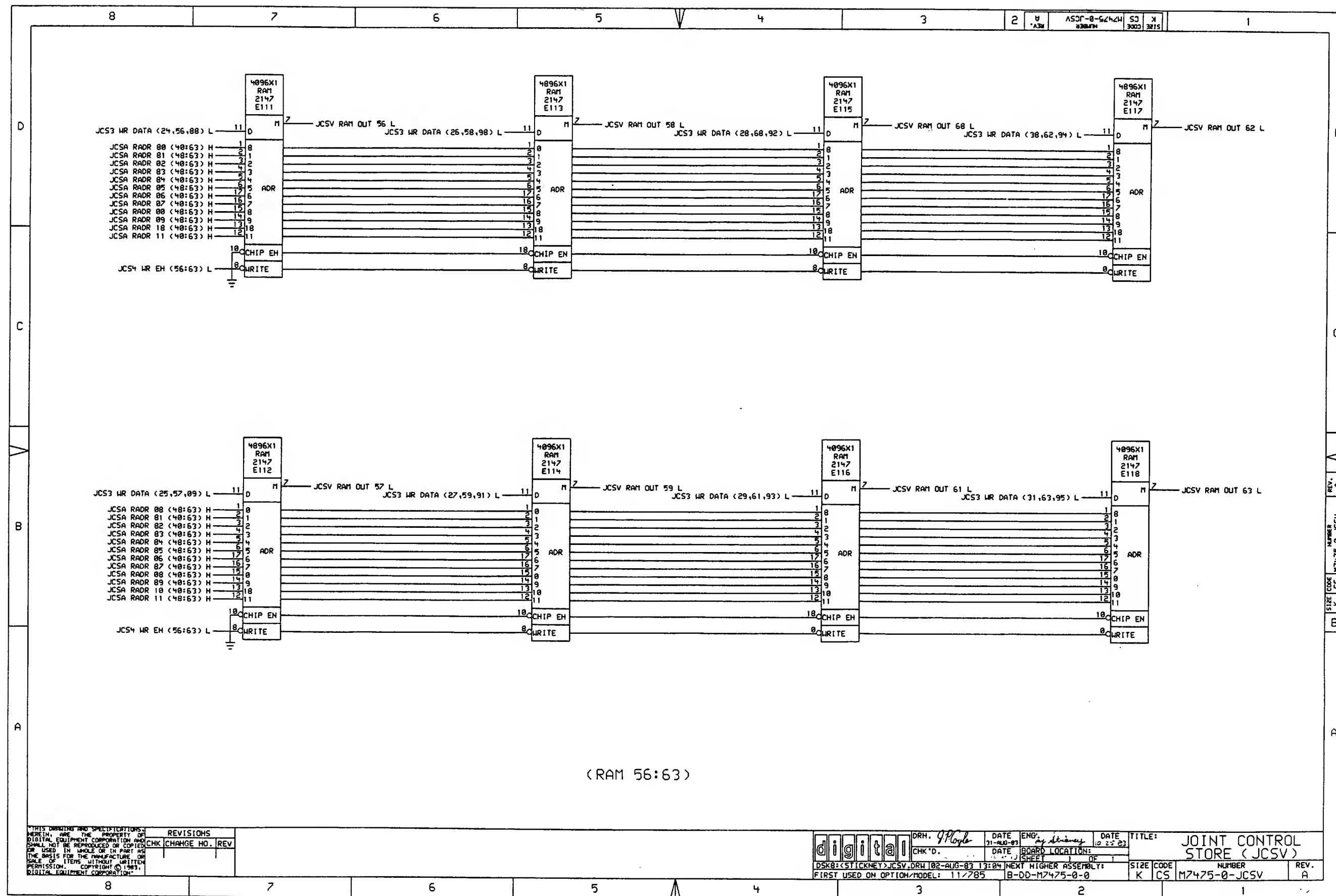


REV. A  
NUMBER 17475-B-JCSU  
CS  
K  
D

A

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|  |                      |                       |                      |                   |                                   |
|--|----------------------|-----------------------|----------------------|-------------------|-----------------------------------|
| digital  | DRH. <i>J. Doyle</i> | DATE <i>31-AUG-83</i> | ENG. <i>J. Doyle</i> | DATE <i>08-22</i> | TITLE: JOINT CONTROL STORE (JCSU) |
|  | CHK'D.               | DATE                  | BOARD LOCATION:      | SHEET 1 OF 1      |                                   |
| DSK8: (STICKNEY) JCSU.DRW 102-AUG-83 13:04 NEXT HIGHER ASSEMBLY: |                      |                       |                      |                   |                                   |
| FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7475-0-0                |                      |                       |                      |                   |                                   |
| SIZE   | CODE                 | NUMBER                |                      | REV.              |                                   |
| K  | CS                   | M7475-0-JCSU          |                      | A                 |                                   |

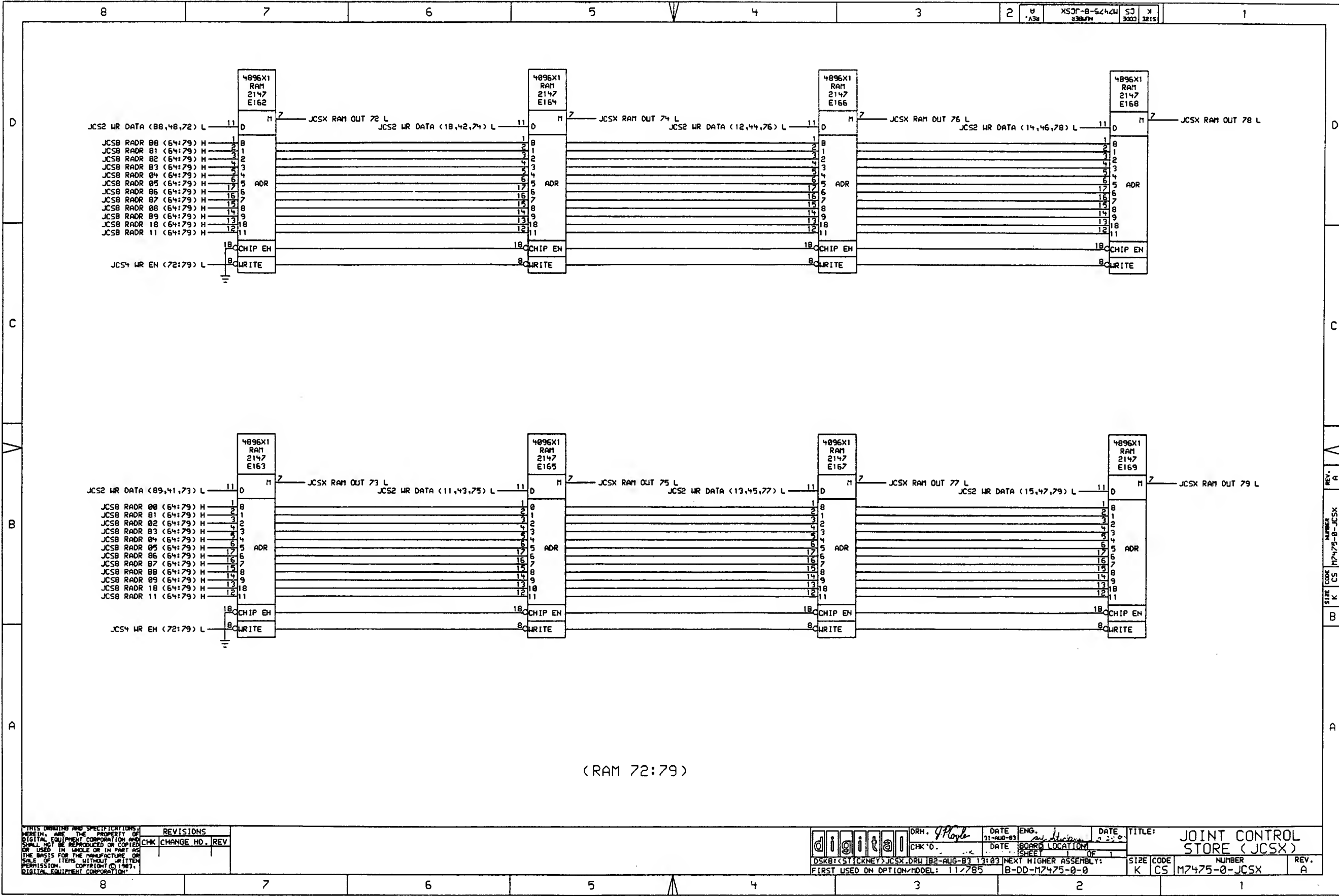


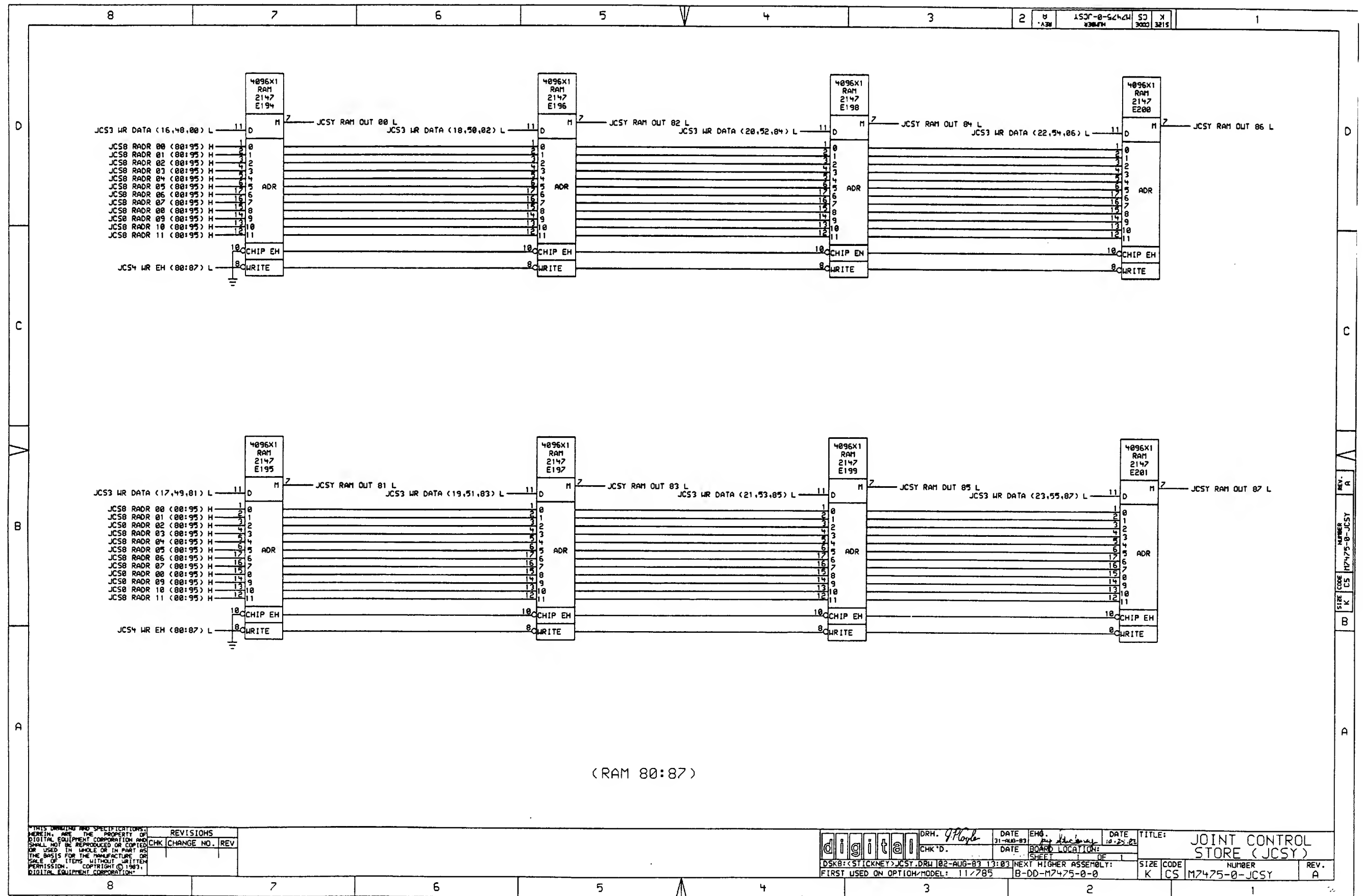
THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|   |                      |                 |                                      |                |                                   |
|---|----------------------|-----------------|--------------------------------------|----------------|-----------------------------------|
| digital                                   | DRH: <i>J. Hoyle</i> | DATE: 31-AUG-83 | ENG: <i>Asst. Engr.</i>              | DATE: 10-23-83 | TITLE: JOINT CONTROL STORE (JCSV) |
|   | CHK'D:               | DATE:           | BOARD LOCATION:                      | SHEET: 1       |                                   |
| DSK8: <STICKNEY> JCSV.DRW 02-AUG-83 13:04 |                      |                 | NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0 |                | SIZE CODE: K CS                   |
| FIRST USED ON OPTION/MODEL: 11/785        |                      |                 |                                      |                | NUMBER: M7475-0-JCSV              |
|   |                      |                 |                                      |                | REV: A                            |

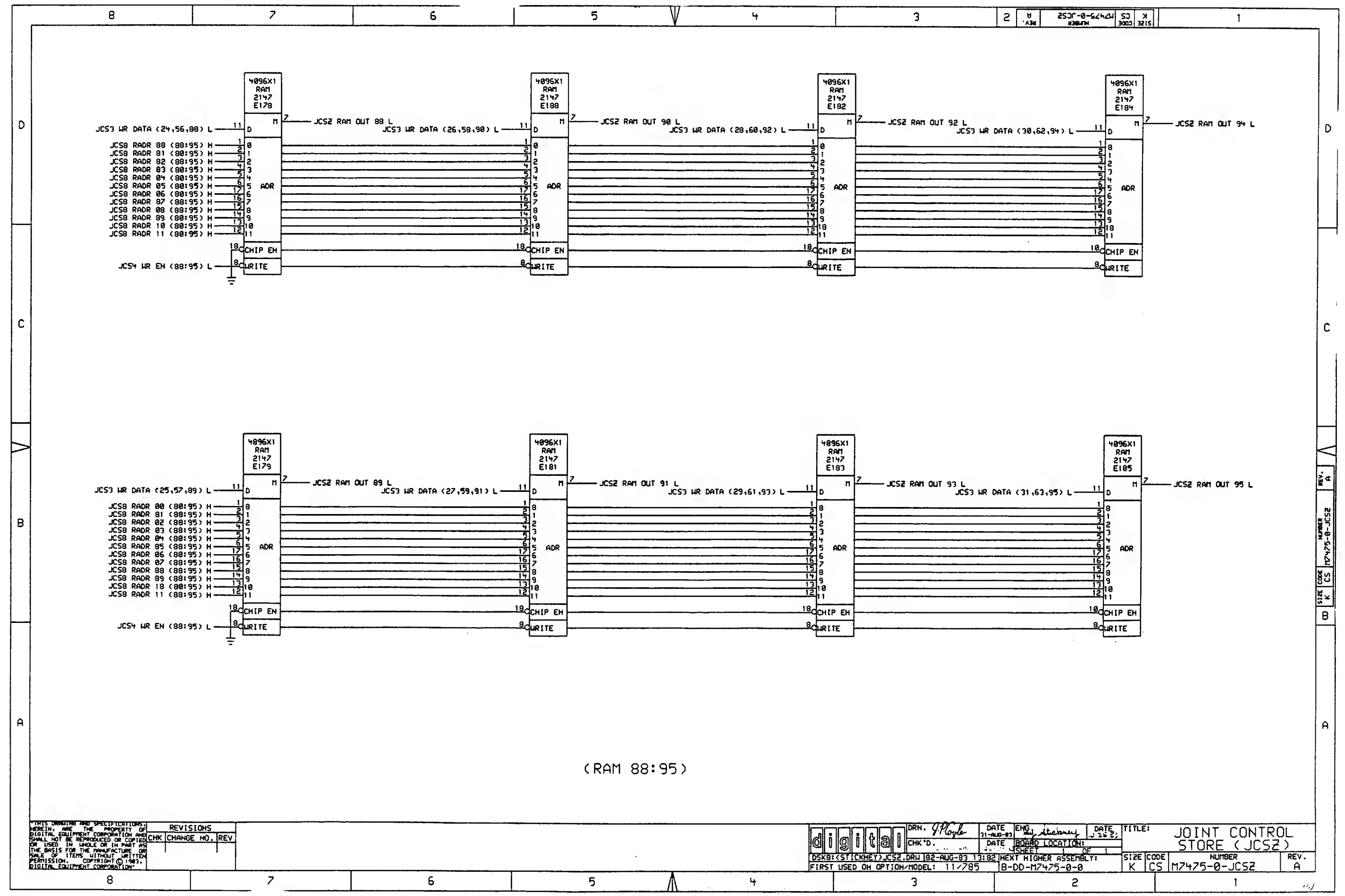






| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|  |                      |                |                      |               |                                   |
|--|----------------------|----------------|----------------------|---------------|-----------------------------------|
| digital  | DRH. <i>W. H. H.</i> | DATE 31-AUG-83 | ENG. <i>W. H. H.</i> | DATE 10-25-83 | TITLE: JOINT CONTROL STORE (JCSY) |
|  | CHK'D.               | DATE           | BOARD LOCATION:      | SHEET 1 OF 1  |                                   |
| DSK8:(STICKNEY)JCSY.DRW 102-AUG-83 13:03 NEXT HIGHER ASSEMBLY: |                      |                |                      |               |                                   |
| FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7475-0-0              |                      |                |                      |               |                                   |
| SIZE   | CODE                 | NUMBER         | REV.                 |               |                                   |
| K  | CS                   | M7475-0-JCSY   | A                    |               |                                   |



THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983.  
DIGITAL EQUIPMENT CORPORATION

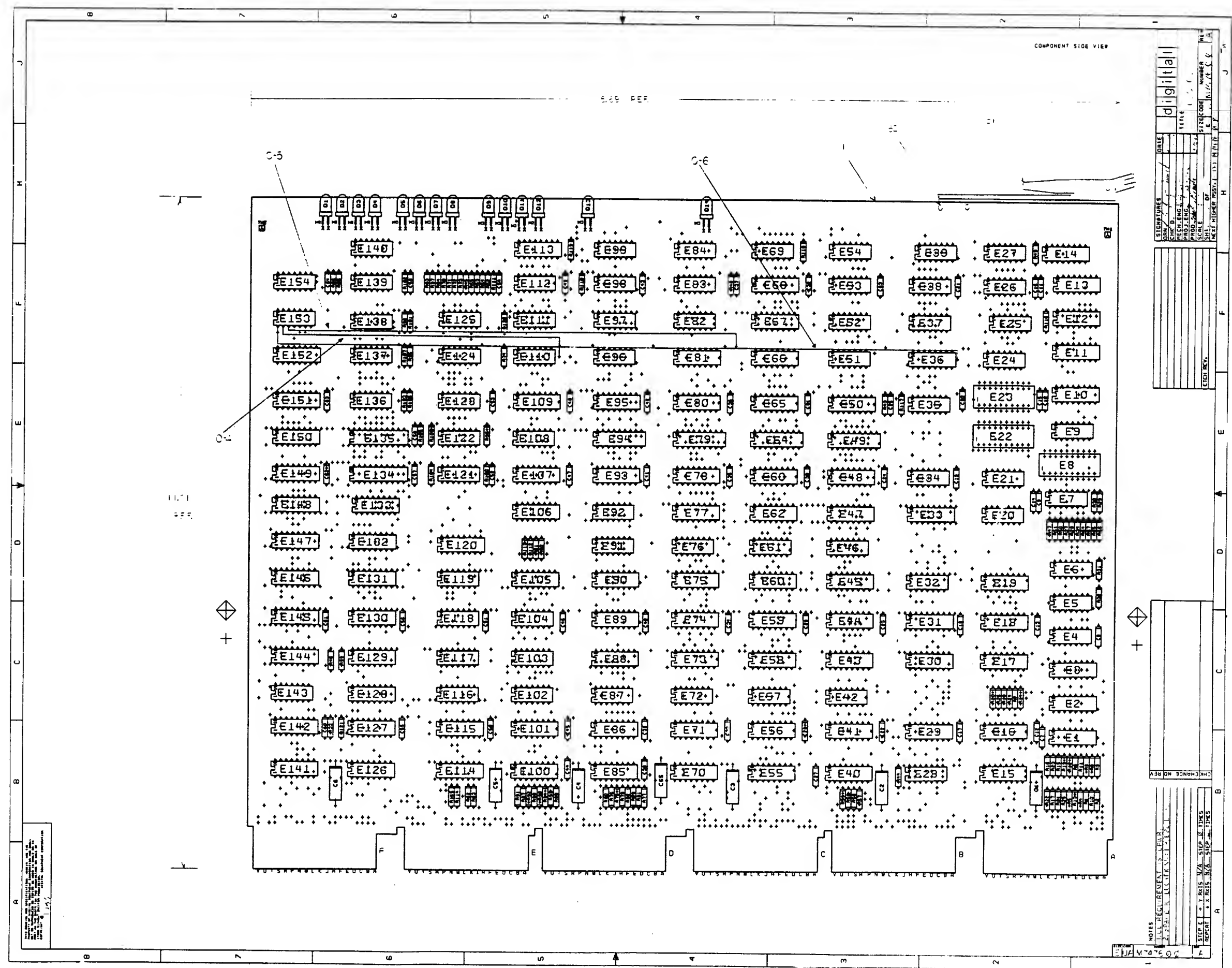
| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |

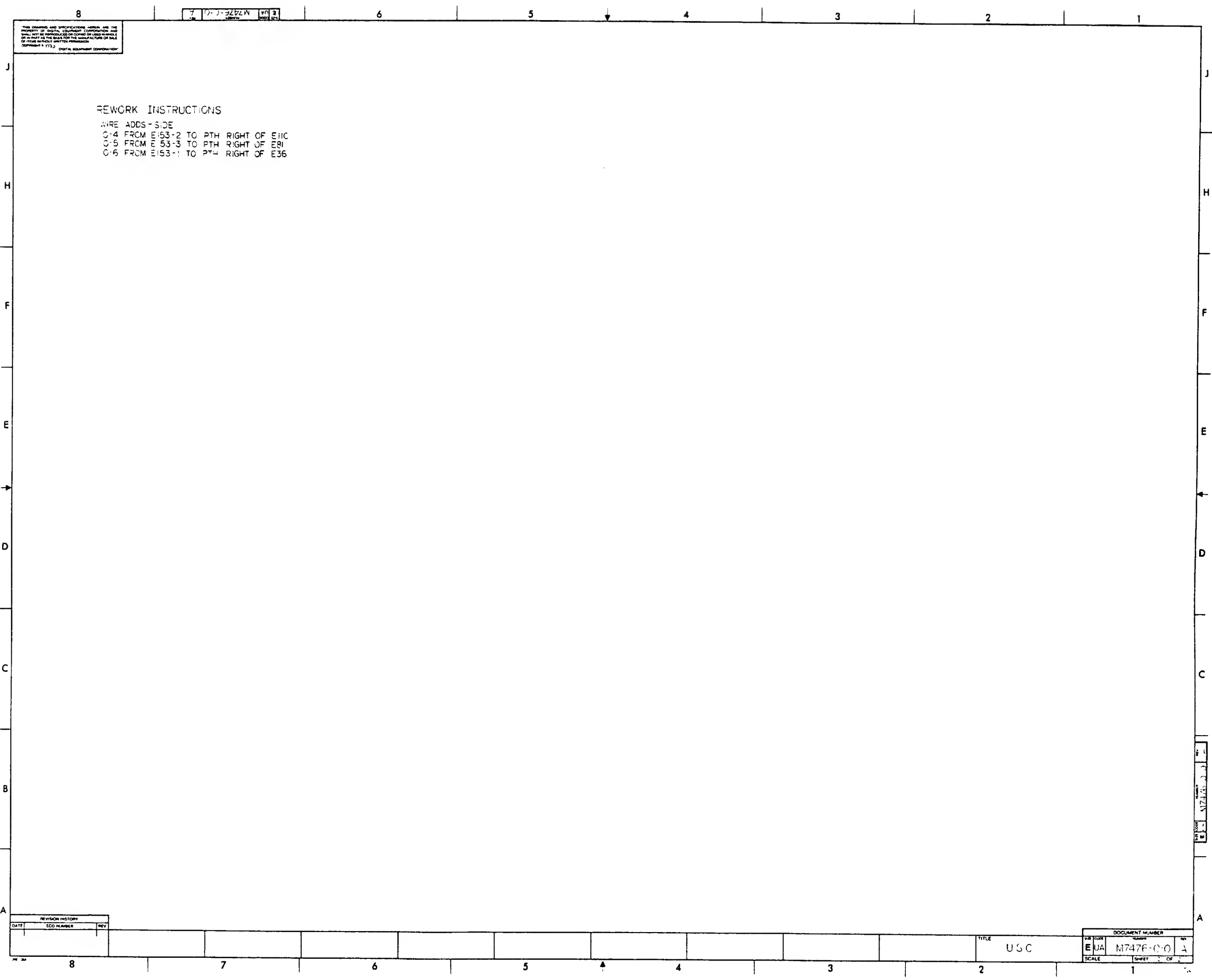
|  |            |                |                |                |                                   |
|--|------------|----------------|----------------|----------------|-----------------------------------|
| digital  | DRN. 9760b | DATE 31-AUG-83 | ENG. J. J. J.  | DATE 31-AUG-83 | TITLE: JOINT CONTROL STORE (JCSZ) |
|  | CHK'D.     | DATE 31-AUG-83 | DATE 31-AUG-83 | DATE 31-AUG-83 | DATE 31-AUG-83                    |
| DSK81<STICKKEY>JCSZ.DRW 182-AUG-83 13:02 NEXT HIGHER ASSEMBLY: 18-DD-M7475-0-0 |            |                |                |                |                                   |
| FIRST USED ON OPTION/MODEL: 11/785   |            |                |                |                |                                   |
| SIZE   | CODE       | NUMBER         |                | REV.           |                                   |
| K  | CS         | M7475-0-JCSZ   |                | A              |                                   |



[illegible]

[illegible]





THIS DRAWING AND SPECIFICATIONS HEREBY ARE THE PROPERTY OF JAGUAR, LEONARD COMPANY AND SHALL NOT BE REPRODUCED OR COPIED IN ANY MANNER OR BY ANY MEANS FOR THE MANUFACTURE OR SALE OF THIS OR OTHER UNIFORMS OR EQUIPMENT WITHOUT WRITTEN PERMISSION OF JAGUAR, LEONARD COMPANY

| REVISION HISTORY |            |     |
|------------------|------------|-----|
| DATE             | ECO NUMBER | REV |
|                  |            |     |

|       |  |                 |  |
|-------|--|-----------------|--|
| TITLE |  | DOCUMENT NUMBER |  |
| U S C |  | EUA M7476-000 A |  |
| SCALE |  | SHEET 1 OF 1    |  |

|    |    |                  |            |  |                             |    |      |  |
|----|----|------------------|------------|--|-----------------------------|----|------|--|
| 1  | 1  | D-MD-5016103-0-0 | 5016103-01 |  | ETCH CIRCUIT BOARD          | 1  |      |  |
| 2  | 2  |                  | 1300247-00 |  | 120.0 .25 W 5.0 % CF        | 10 |      | R56,R58,R76,R78,R79,R81,R90-R93  |
| 3  | 3  |                  | 1300250-00 |  | 150.0 .25 W 5.0 % CF        | 10 |      | R57,R59,R75,R77,R80,R82,R87-R89,<br>R94  |
| 4  | 4  |                  | 1300295-00 |  | 330.0 .25 W 5.0 % CF        | 17 | CONT | R1,R3,R4,R9,R12-R15,R18,R19,R22,<br>R23,R26,R60,R62,R112,R114                                      |
| 5  | 5  |                  | 1300316-00 |  | 470.0 .25 W 5.0 % CF        | 22 | CONT | R28,R29,R31,R33,R45,R46,R51-R55,<br>R64,R67,R70-R73,R83-R86,R111                                   |
| 6  | 6  |                  | 1300365-00 |  | 1.0 K .25 W 5.0 % CF        | 26 | CONT | R43,R44,R48,R49,R74,R95-R108,<br>R110,R116-R121  |
| 7  | 7  |                  | 1301775-00 |  | 820.0 .25 W 5.0 % CF        | 25 | CONT | R2,R5-R8,R10,R11,R16,R17,R20,<br>R21,R24,R25,R27,R30,R32,R34,R47,<br>R50,R61,R63,R65,R66,R113,R115 |
| 8  | 8  |                  | 1921305-01 |  | 74F00 NAND GATE,QUAD,2-IN   | 4  |      | E32,E53,E97,E119   |
| 9  | 9  |                  | 1910533-00 |  | 74S03 NAND GATE-QUAD 2IN,0  | 3  |      | E4,E6,E7   |
| 10 | 10 |                  | 1921307-01 |  | 74F04 HEX INVERTER          | 6  |      | E9,E51,E82,E143,E103,E117  |
| 11 | 11 |                  | 1910535-00 |  | 74S05 INVERTER GATE-HEX 1   | 4  |      | E5,E123,E124,E154  |
| 12 | 12 |                  | 1921309-01 |  | 74F10 NAND GATE,TRIPLE,3-1  | 6  |      | E99,E116,E118,E72,E87,E102   |
| 13 | 13 |                  | 1921310-01 |  | 74F11 AND GATE,TRIPLE,3-IN  | 5  |      | E27,E83,E84,E96,E104   |
| 14 | 14 |                  | 1921311-01 |  | 74F20 NAND GATE,DUAL,4-IN   | 6  |      | E20,E46,E61,E76,E91,E108   |
| 15 | 15 |                  | 1910540-00 |  | 74S22 NAND GATE-DUAL 4INPU  | 7  |      | E121,E122,E136-E140  |
| 16 | 16 |                  | 1910541-00 |  | 74S40 BUFFER,POS-NAND,DUAL  | 1  |      | E21  |
| 17 | 17 |                  | 1921313-01 |  | 74F64 AND OR INVERT GATE,4- | 2  |      | E54,E69  |
| 18 | 18 |                  | 1921314-01 |  | 74F74 FF-D,DUAL,POS.,EDGE   | 5  |      | E38,E26,E37,E92,E98  |
| 19 | 19 |                  | 1910545-00 |  | 74S112 FF-JK DUAL,EDGE TRIG | 1  |      | E14  |
| 20 | 20 |                  | 1910546-00 |  | 74S140 NAND GATE-DUAL 4INPU | 1  |      | E28  |
| 21 | 21 |                  | 1921319-01 |  | 74F153 MUX,DUAL,4-IN        | 13 |      | E1,E31,E55,E43,E44,E58,E59,E70,<br>E73,E74,E88,E89,E101  |
| 22 | 22 |                  | 1921320-01 |  | 74F157 MUX,QUAD,2-IN        | 5  | CONT | E12,E50,E65,E80,E95  |
| 23 | 23 |                  | 1921323-01 |  | 74F174 FF-D,HEX             | 4  |      | E2,E3,E62,E77  |

|                  |             |     |                         |  |   |  |                      |  |   |      |             |     |
|------------------|-------------|-----|-------------------------|--|---|--|----------------------|--|---|------|-------------|-----|
| REVISION HISTORY |             |     | BASIC PART NO: M7476    |  | DRN: S.MANSOR   |  | DATE: 05-AUG-83      |  | D I G I T A L                                     |      |             |     |
| ENG:             | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D: F.GAROFALO   |  | DATE: 10-AUG-83      |  | TITLE PARTS LIST<br>MICRO SEQUENCER CONTROL (USC) |      |             |     |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  | DES.ENG: K.SPENCER  |  | DATE: 10-AUG-83      |  | DOCUMENT NUMBER                                   |      |             |     |
| KS               | M7476-TW001 | B   | (A) 00                  |  | RESP.ENG.: K.SPENCER  |  | DATE: 10-AUG-83      |  | SIZE  | CODE | NUMBER      | REV |
|                  |             |     | (8)                     |  | MFG.ENG.: M.KRYSAK  |  | DATE: 27-SEP-83      |  | K   | PL   | M7476-0-DBP | B   |
|                  |             |     | (C)                     |  | ASSEMBLY NUMBER:  |  | TOP DOCUMENT NUMBER: |  | FILE NAME:  |      | EDIT #      |     |
|                  |             |     | (D)                     |  | E-UA-M7476-0-0  |  | B-DD-M7476-0-0       |  | Z3955B.PLS  |      | 11          |     |
|                  |             |     | (E)                     |  | THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS. |  |                      |  |   |      |             |     |
|                  |             |     | (F)                     |  |   |  |                      |  |   |      |             |     |
|                  |             |     | (H)                     |  |   |  |                      |  |   |      |             |     |
|                  |             |     | (J)                     |  |   |  |                      |  |   |      |             |     |
|                  |             |     | (L)                     |  |   |  |                      |  |   |      |             |     |
|                  |             |     | (M)                     |  |   |  |                      |  |   |      |             |     |
|                  |             |     | (N)                     |  |   |  |                      |  |   |      |             |     |

AUTOMATED BY PRTLST.40(50)

PARTS LIST

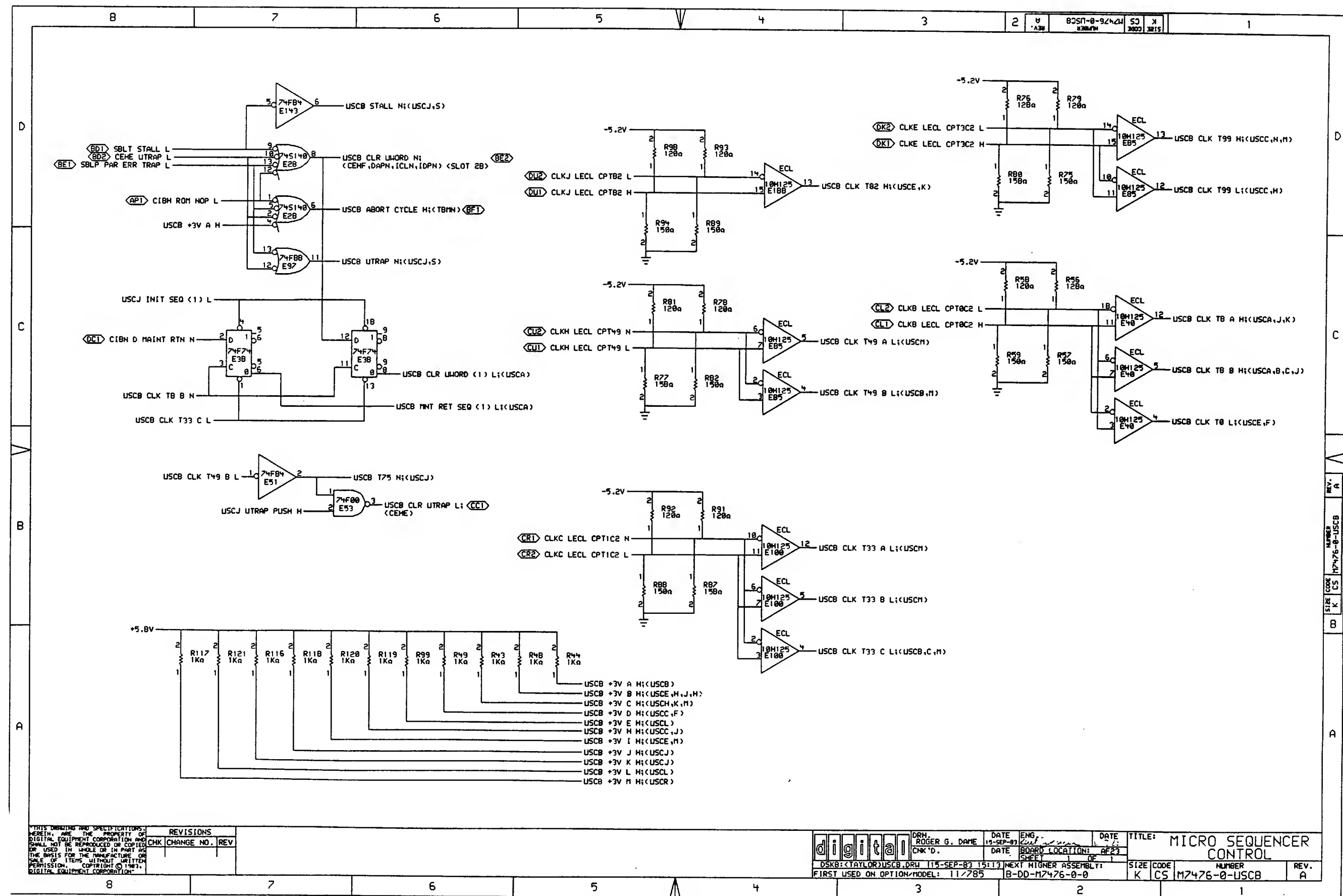
SHEET A2 OF A2

| LINE                      | ITEM | TOP DOCUMENT | PART NUMBER                   | MIN REV    | DESCRIPTION                      | QTY                      | PER VARIATION | REFERENCE DESIGNATOR                                     |  |
|---------------------------|------|--------------|-------------------------------|------------|----------------------------------|--------------------------|---------------|--|--|
| VARIATION REVISION LEVEL: |      |              |                               |            |                                  | 00                       |               |  |  |
|                           |      |              |                               |            |                                  | B1                       |               |  |  |
| 24                        | 24   | BLANK        | 1921327-01                    |            | 74F194 SHIFT REG,UNIV,BIDIR      | 5                        |               | E10,E48,E63,E78,E93                                      |  |
| 25                        | 25   |              | *** THIS ITEM IS NOT USED *** | -          |                                  |                          |               |  |  |
| 26                        | 26   |              | 1921318-01                    |            | 74F151 MUX,8-IN                  | 3                        |               | E17,E18,E29  |  |
| 27                        | 27   |              | 1921324-01                    |            | 74F175 FF-D,QUAD                 | 6                        |               | E67,E105,E115,E146,E148,E150                             |  |
| 28                        | 28   |              | 1921720-01                    |            | 10H125 TRANSLATOR ECL TO TTL     | 3                        |               | E40,E85,E100   |  |
| 29                        | 29   |              | 1911469-00                    | DEC        | 8640 RECEIVER,BUS,QUAD,U         | 1                        |               | E110   |  |
| 30                        | 30   |              | 1921316-01                    |            | 74F138 DECODER/DEMUX,1-OF-8      | 1                        |               | E114   |  |
| 31                        | 31   |              | 1921317-01                    |            | 74F139 DECODER,DUAL,1-OF-4       | 1                        |               | E81  |  |
| 32                        | 32   |              | 1911712-00                    |            | 74S51 AND-OR GATE-INVERT D       | 1                        |               | E24  |  |
| 33                        | 33   |              | 1912089-00                    |            | 74S85 CMPRTR-4BIT MAGNITUD       | 4                        |               | E106,E107,E113,E120                                      |  |
| 34                        | 34   |              | 1921306-01                    |            | 74F02 NOR GATE,QUAD,2-IN         | 2                        |               | E112,E153  |  |
| 35                        | 35   |              | 1921308-01                    |            | 74F08 AND GATE,QUAD,2-IN         | 2                        |               | E39,E42  |  |
| 36                        | 36   |              | 1912586-01                    |            | 85S68A REGISTER,16X4 EDGE T      | 4                        |               | E49,E64,E79,E94  |  |
| 37                        | 37   |              | 1921329-01                    |            | 74F253 MUX,DUAL,4-IN             | 4                        |               | E129,E141,E142,E144                                      |  |
| 38                        | 38   |              | 1921328-01                    |            | 74F251 MUX,8-IN                  | 1                        |               | E145   |  |
| 39                        | 39   |              | 1912746-01                    |            | 74S37-1BUFFER-GATE               | 3                        |               | E52,E57,E111   |  |
| 40                        | 40   |              | 1912796-00                    |            | 74148 ENCODER,PRIORITY,8 T       | 1                        |               | E68  |  |
| 41                        | 41   |              | 1912820-00                    |            | LS51 A-0-I GATE 2-WIDE 2I        | 1                        |               | E25  |  |
| 42                        | 42   |              | 1921333-01                    |            | 74F283 BINARY FULL ADDER,4       | 2                        |               | E11,E13  |  |
| 43                        | 43   |              | 1921322-01                    |            | 74F161 BINARY COUNTER,PRES       | 4                        |               | E45,E60,E75,E90  |  |
| 44                        | 44   |              | 1921312-01                    |            | 74F32 OR GATE,QUAD,2-IN          | 3                        |               | E34,E35,E125   |  |
| 45                        | 45   |              | 1921008-01                    |            | 74F240 BUFFER/LINE DRIVER,I      | 2                        |               | E134,E135  |  |
| 46                        | 46   |              | 1913788-00                    |            | 26S10 TRANSCEIVER,BUS,QUA        | 4                        |               | E41,E56,E71,E86  |  |
| 47                        | 47   |              | 1913839-00                    |            | LS165 SHIFT REG.,8BIT            | 13                       |               | E15,E16,E19,E30,E33,E36,E47,E66,E109,E147,E149,E151,E152 |  |
| 48                        | 48   |              |                               | 1110324-00 |                                  | LED 1MCD@10MA PIV=3      | 14            | CONT   | D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13,D14 |
| 49                        | 49   |              |                               | 1017472-00 |                                  | 10 MFD 35V +75-10% AL EL | 7             | CONT   | C1-C6,C65                                      |
| 50                        | 50   |              |                               | 1012784-00 |                                  | .047 MFD 50V +80-20% CER | 58            |  | C7-C64   |
| 51                        | 51   |              | 1216988-02                    |            | HANDLE,MODULE,HEX TWO EJECTORS   | 1                        |               |  |  |
| 52                        | 52   |              | 9000024-01                    |            | EYELET,ROLLED 0.1210DX0.192      | 12                       |               |  |  |
| 53                        | 53   |              | 1922191-01                    |            | 74F353 DUAL 4IN MULTIPLEXER TRI- | 7                        |               | E130-E133,E126-E128                                      |  |

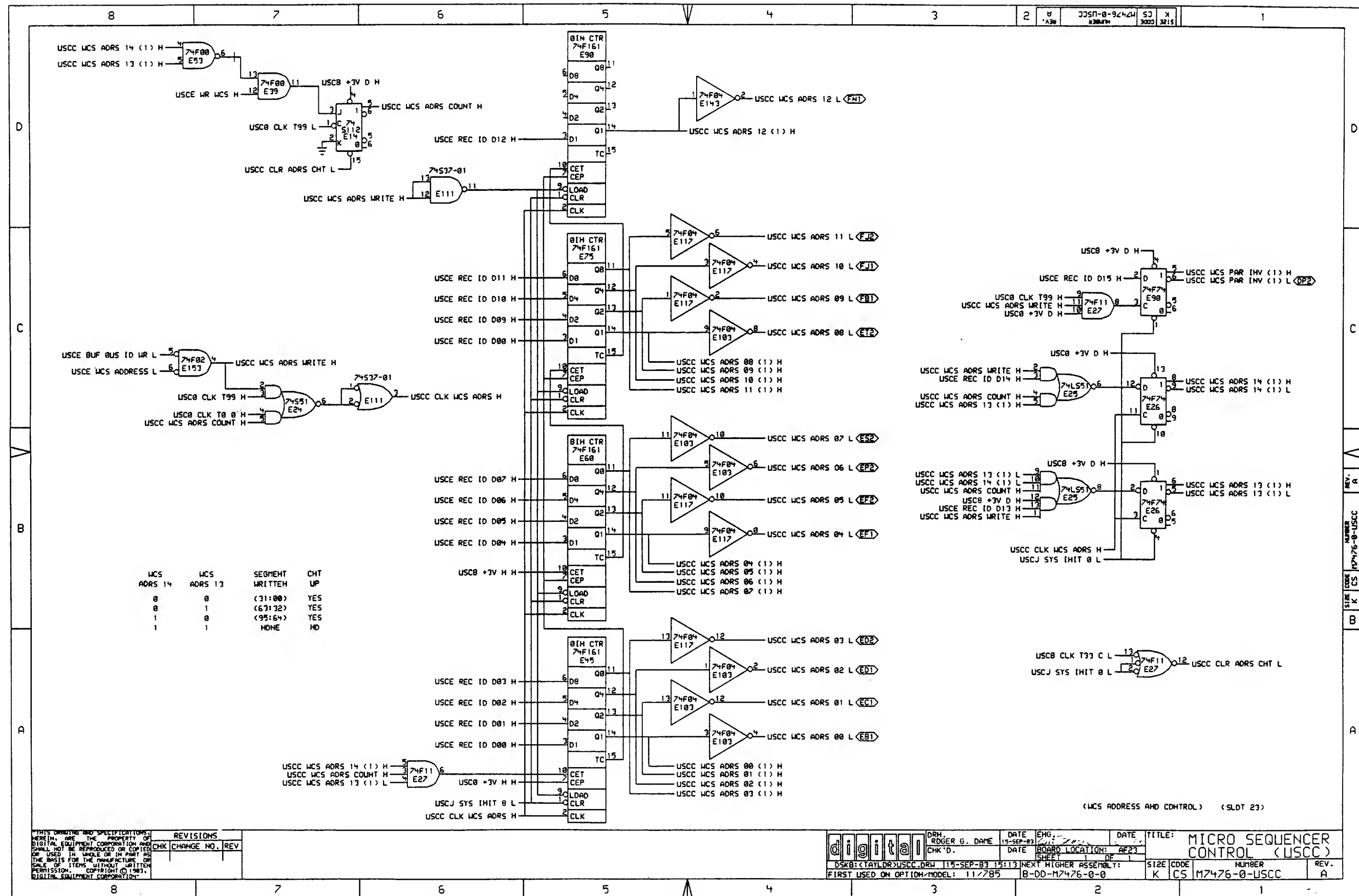
54 NOTE: SPARE I.C. LOC. ARE E8,E22,E23

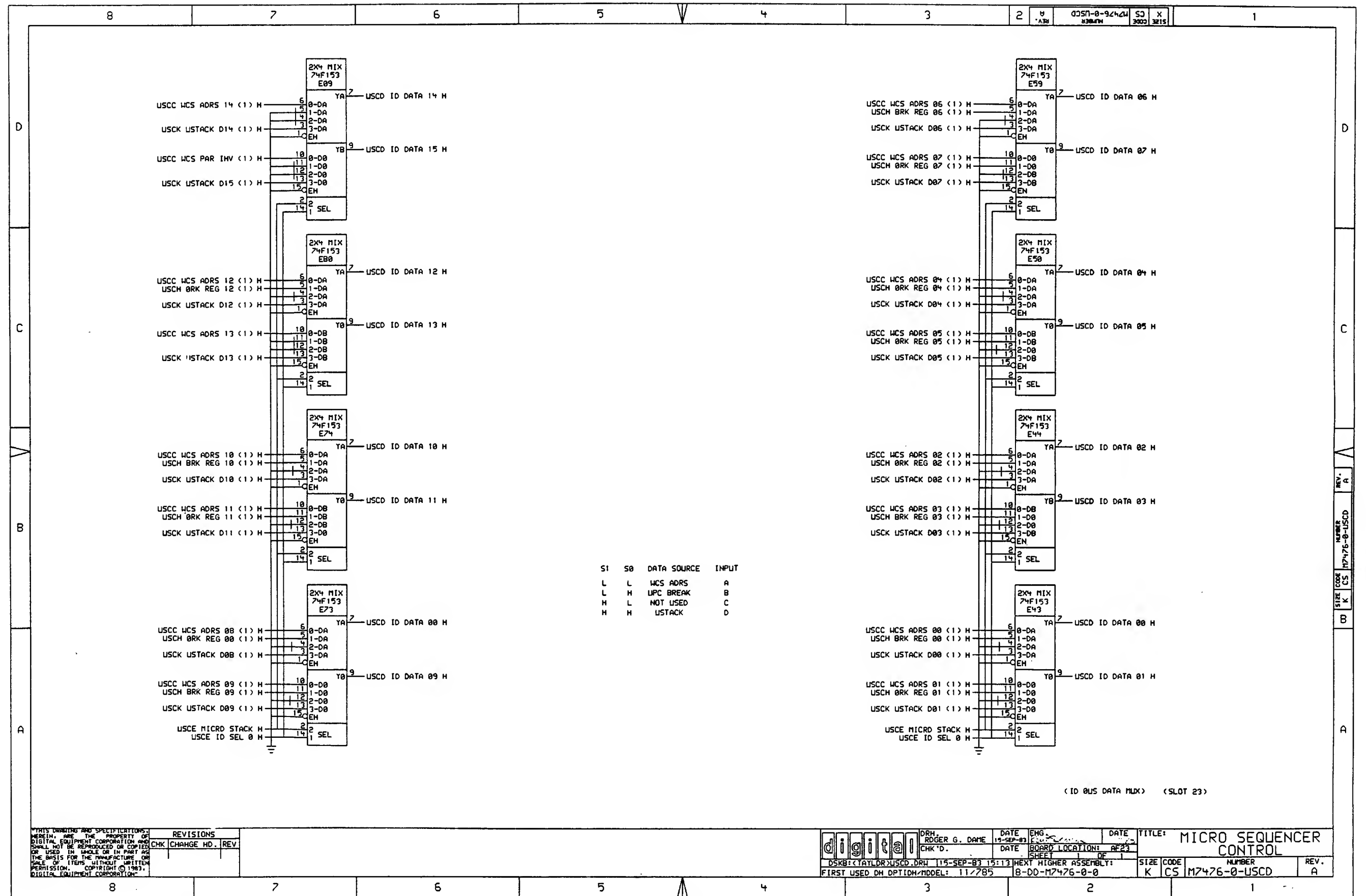
|   |   |   |   |   |   |   |       |                               |                |      |      |                 |     |
|---|---|---|---|---|---|---|-------|-------------------------------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE | MICRO SEQUENCER CONTROL (USC) | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   |       |                               |                | K    | PL   | M7476-0-DBP     | 8   |

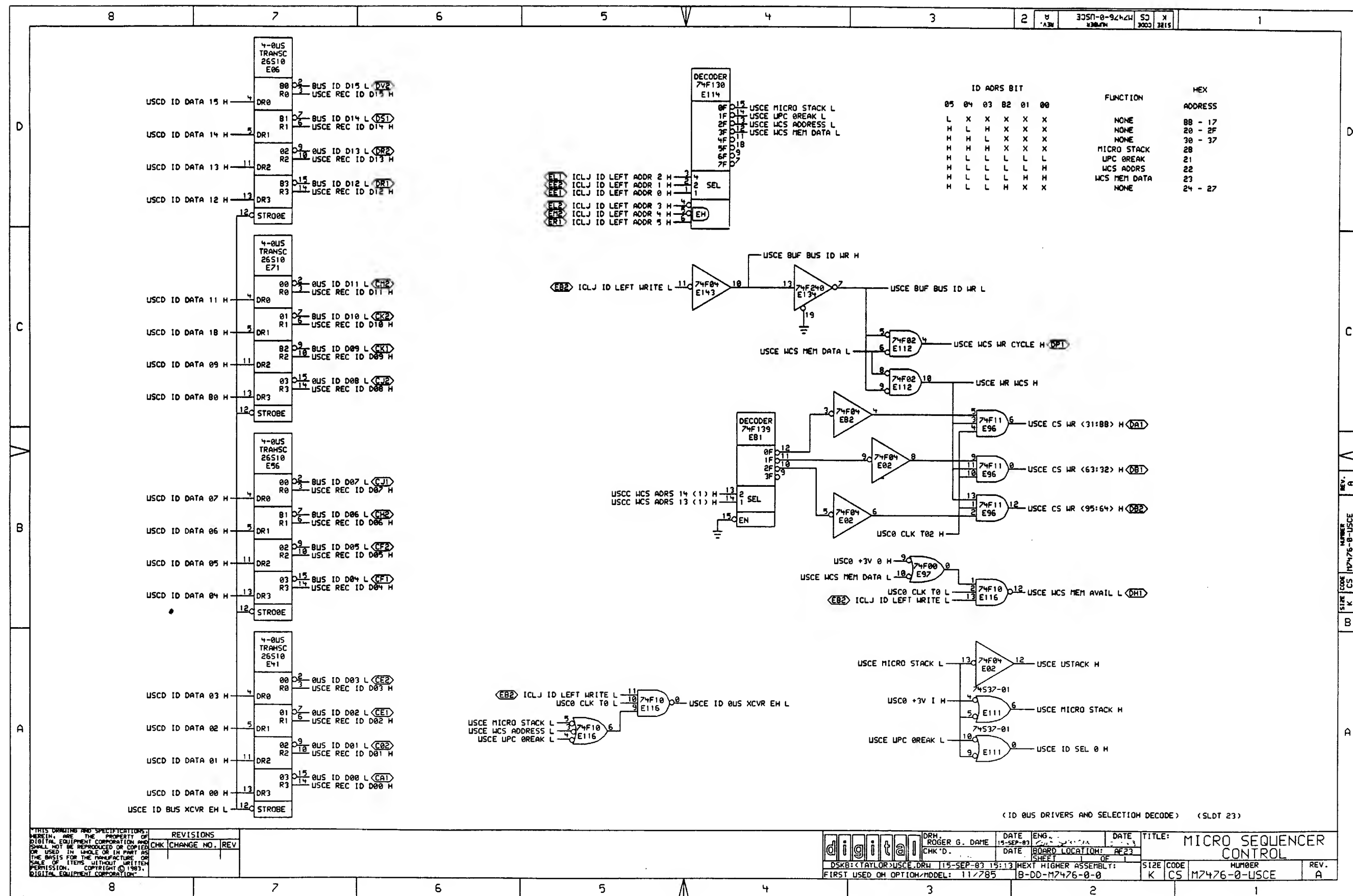


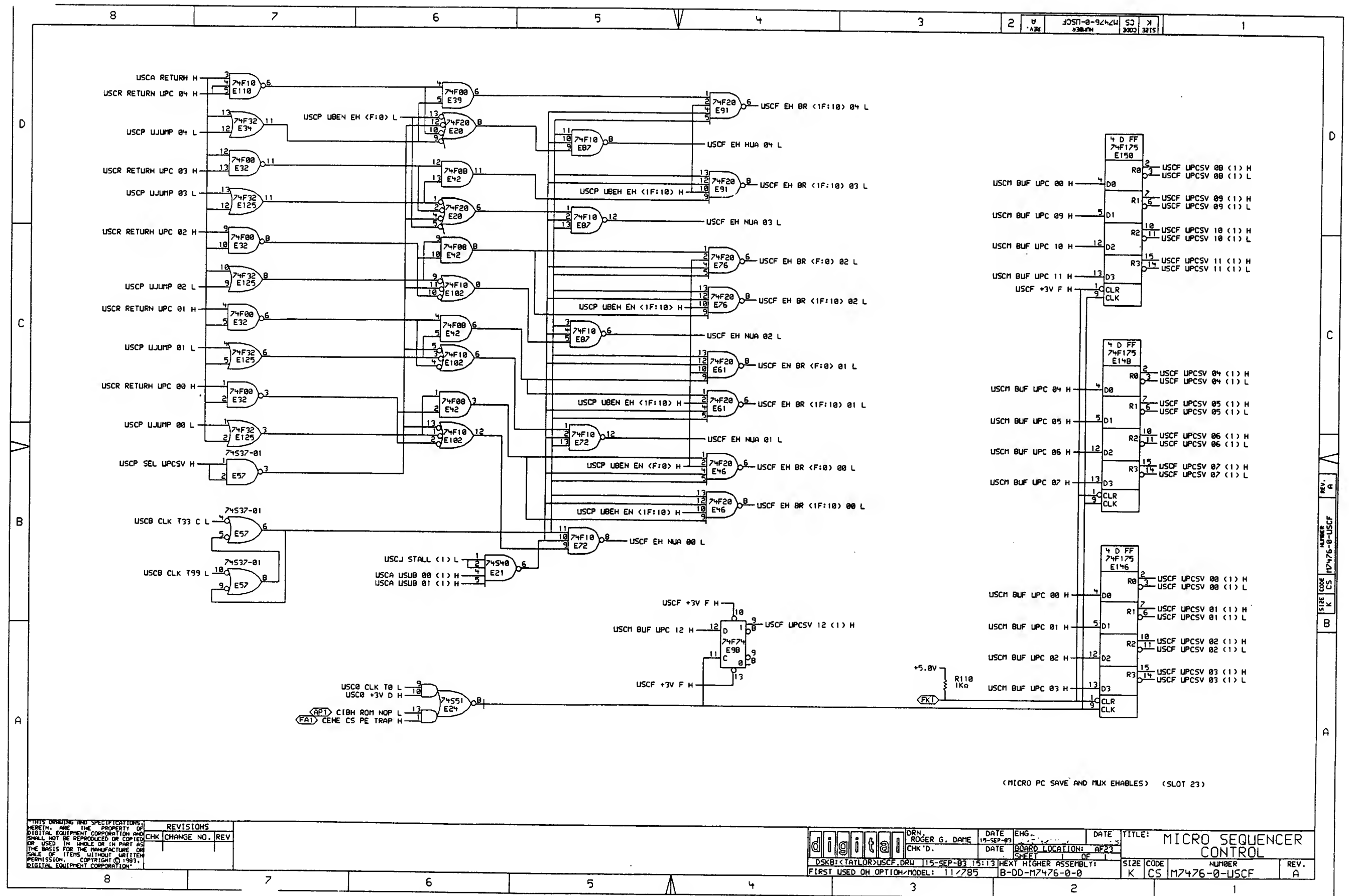


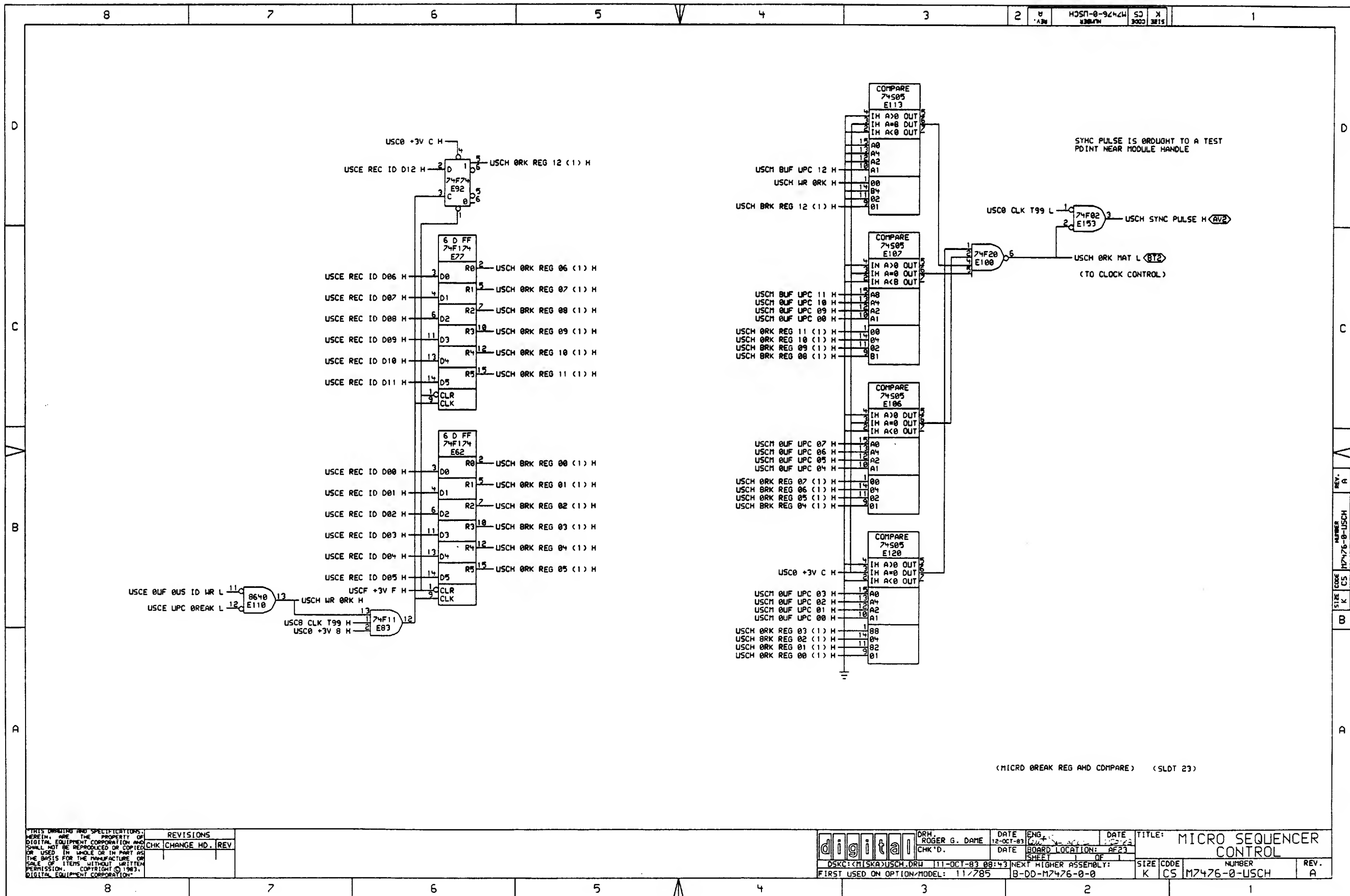












THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION.

REVISIONS  
CHK CHANGE MD, REV

digital  
DRH. ROGER G. DAME  
CHK'D.

DATE 12-OCT-83  
DATE 12-OCT-83

ENG. DATE 12-OCT-83  
DATE 12-OCT-83  
BOARD LOCATION: AF23  
SHEET 1 OF 1

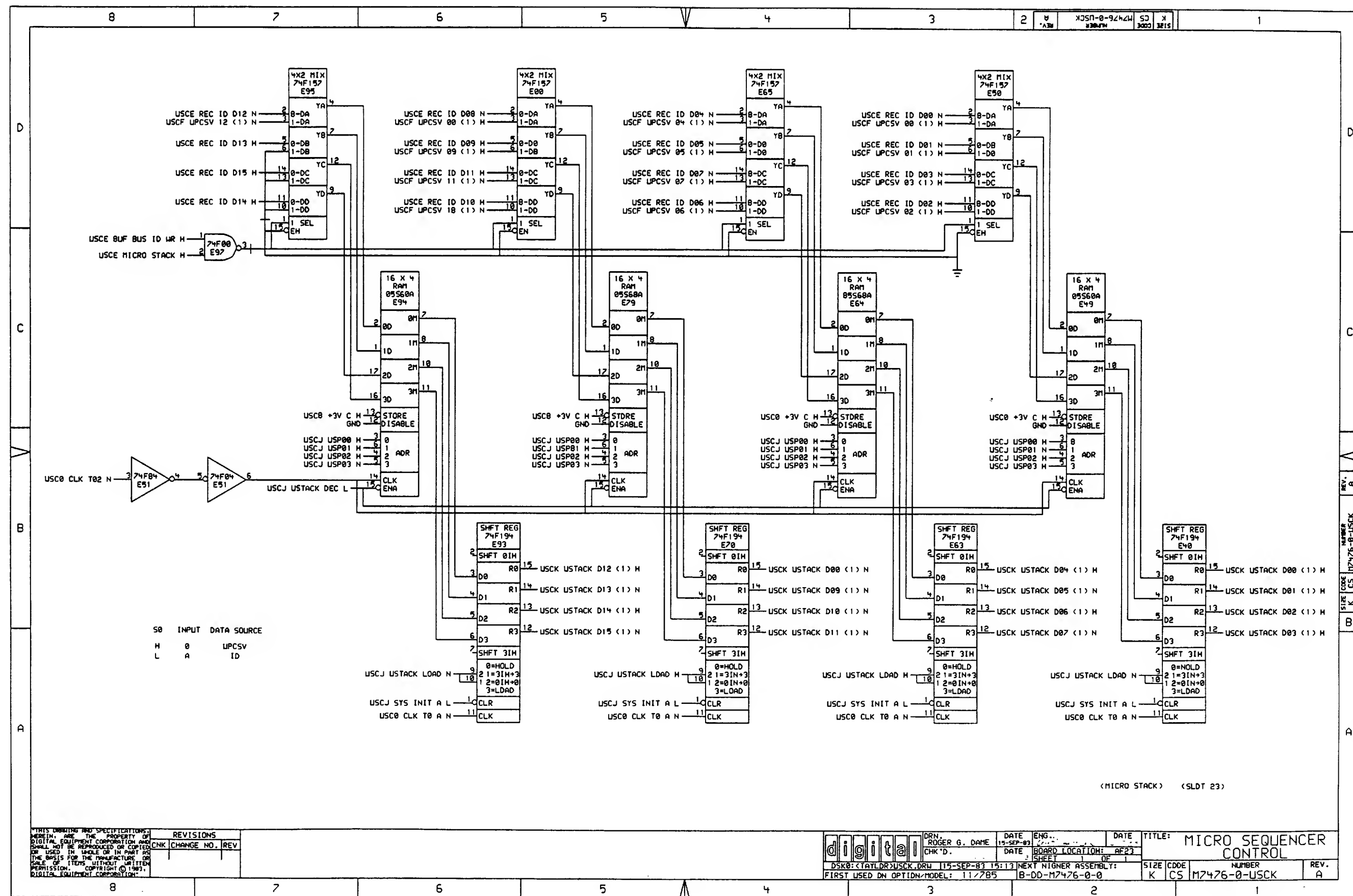
TITLE: MICRO SEQUENCER  
CONTROL

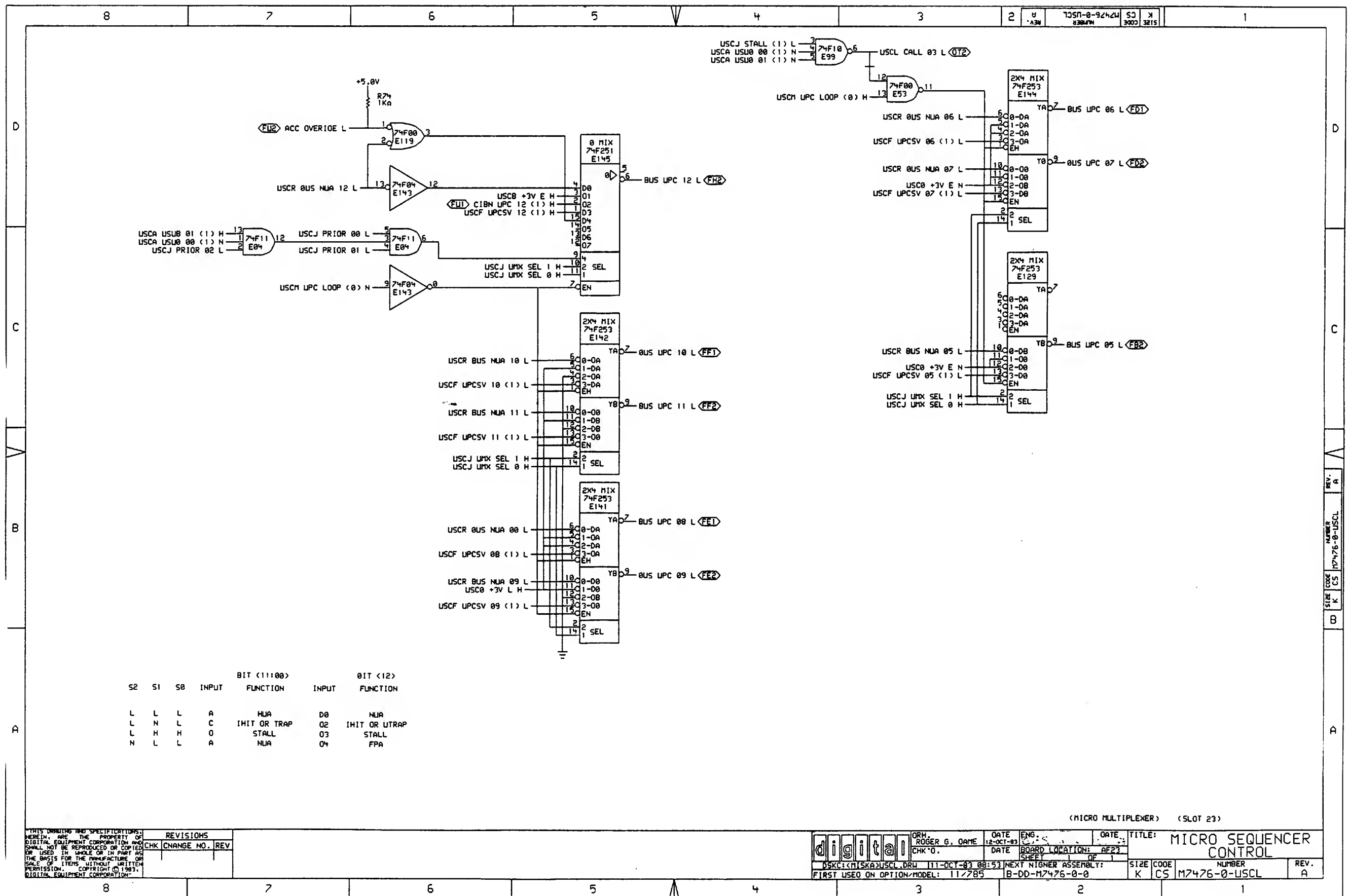
DSKC:CHSKAUSCH.DRW 111-OCT-83 08:43  
FIRST USED ON OPTION MODEL: 11/785

NEXT HIGHER ASSEMBLY:  
B-DD-M7476-0-0

SIZE CODE K CS  
NUMBER M7476-0-USCH  
REV. A







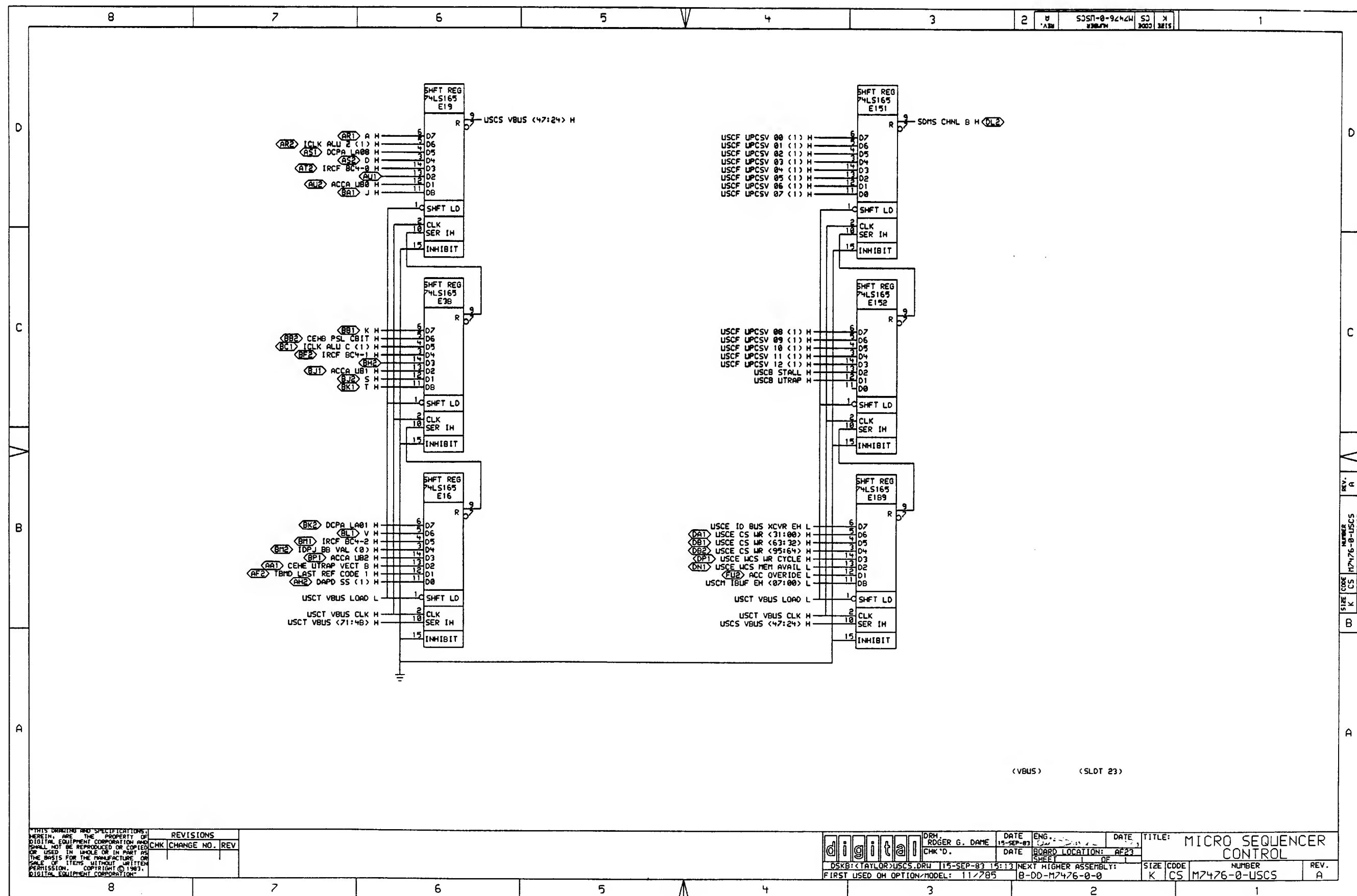


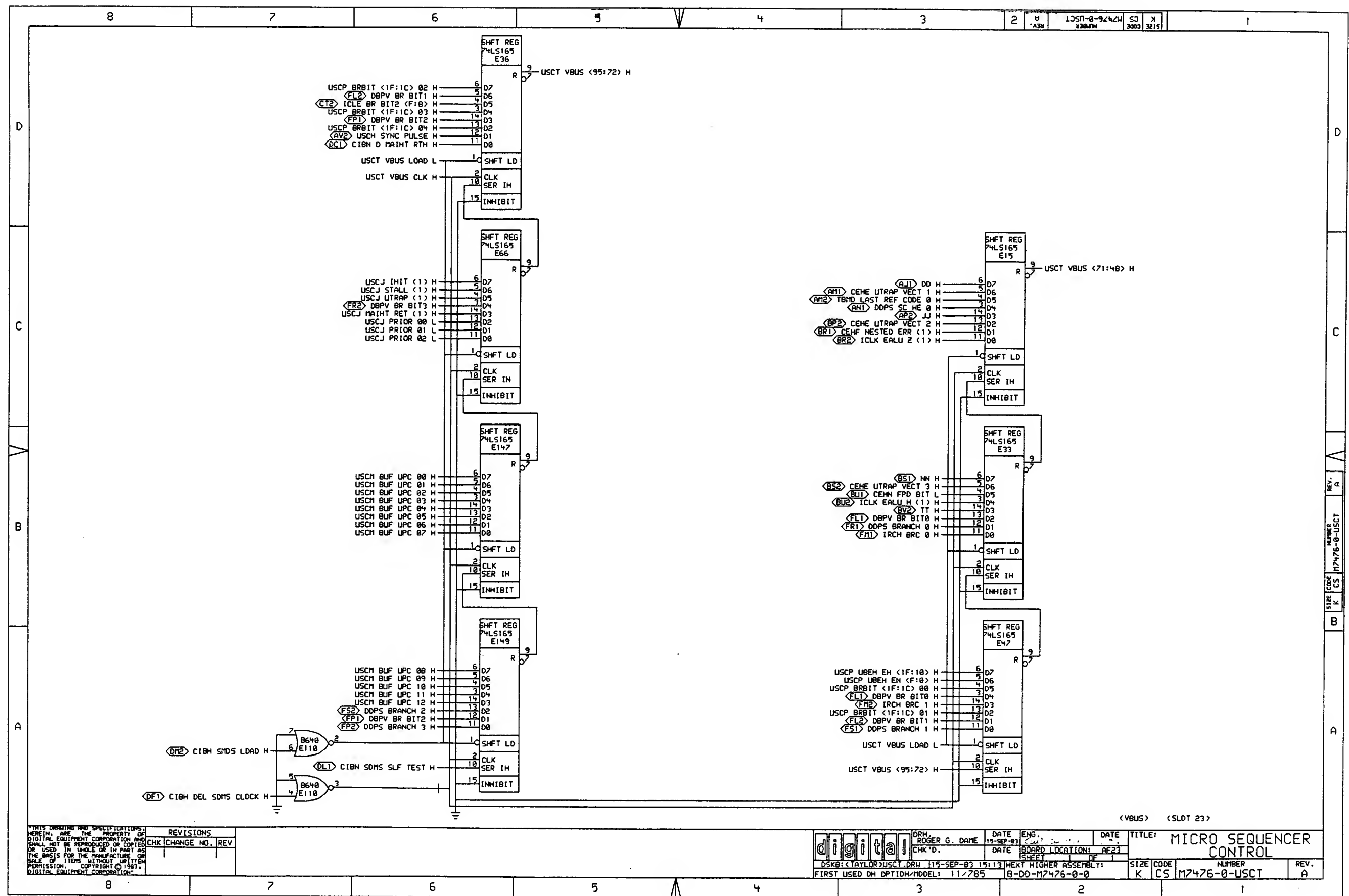


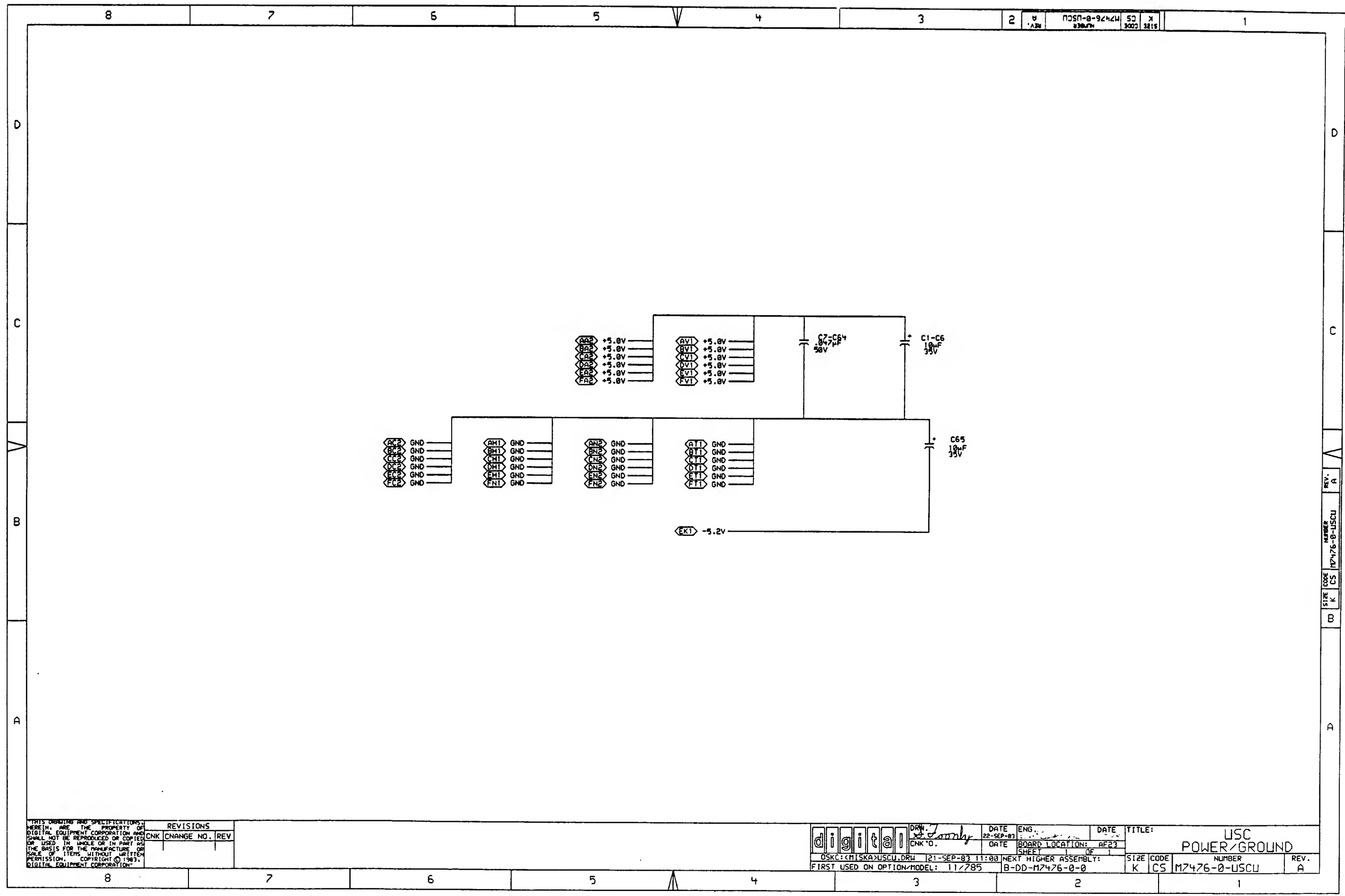












THIS DRAWING AND SPECIFICATIONS  
HEREIN ARE THE PROPERTY OF  
DIGITAL EQUIPMENT CORPORATION AND  
SHALL NOT BE REPRODUCED OR COPIED  
OR USED IN WHOLE OR IN PART AS  
THE BASIS FOR THE MANUFACTURE OR  
SALE OF ITEMS WITHOUT WRITTEN  
PERMISSION. COPYRIGHT © 1983,  
DIGITAL EQUIPMENT CORPORATION.

| REVISIONS |            |     |
|-----------|------------|-----|
| CNK       | CHANGE NO. | REV |
|           |            |     |

|                                    |                  |                       |              |              |
|------------------------------------|------------------|-----------------------|--------------|--------------|
| digital                            | DATE             | ENG.                  | DATE         | TITLE:       |
|                                    | 22-SEP-83        |                       |              | USC          |
|                                    |                  |                       |              | POWER/GROUND |
| OSK:CMISKA\USCU.DRW                | 121-SEP-83 11:00 | NEXT HIGHER ASSEMBLY: | SIZE         | CODE         |
| FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7476-0-0   |                       | K            | CS           |
|                                    |                  |                       | NUMBER       | REV.         |
|                                    |                  |                       | M7476-0-USCU | A            |





8

7

6

5

4

3

2

1

D

C

B

A

| SIGNAL NAME           | PAGE NUMBER(S) | SIGNAL NAME           | PAGE NUMBER(S) | SIGNAL NAME             | PAGE NUMBER(S) |
|-----------------------|----------------|-----------------------|----------------|-------------------------|----------------|
| USCA UJMP 84 (1)H     | USCA,P,R       | USCC WCS ADRS B2 L    | USCC           | USCE ID BUS XCVR EN L   | USCE,S         |
| USCA UJMP 85 (1)H     | USCA,R         | USCC WCS ADRS B3 (1)H | USCC,C         | USCE ID SEL B H         | USCE,E         |
| USCA UJMP 86 (1)H     | USCA,R         | USCC WCS ADRS B3 L    | USCC           | USCE MICRO STACK H      | USCC,K,E       |
| USCA UJMP 87 (1)H     | USCA,R         | USCC WCS ADRS B4 (1)H | USCC,C         | USCE MICRO STACK L      | USCE           |
| USCA UJMP 88 (1)H     | USCA,R         | USCC WCS ADRS B4 L    | USCC           | USCE REC ID DBB H       | USCE,C,K,H     |
| USCA UJMP 89 (1)H     | USCA,R         | USCC WCS ADRS B5 (1)H | USCC,C         | USCE REC ID DB1 H       | USCE,C,K,H     |
| USCA UJMP 10 (1)H     | USCA,R         | USCC WCS ADRS B5 L    | USCC           | USCE REC ID DB2 H       | USCE,C,K,H     |
| USCA UJMP 11 (1)H     | USCA,R         | USCC WCS ADRS B6 (1)H | USCC,C         | USCE REC ID DB3 H       | USCE,C,K,H     |
| USCA UJMP 12 (1)H     | USCA,R         | USCC WCS ADRS B7 (1)H | USCC,C         | USCE REC ID DB4 H       | USCE,C,H,K     |
| USCA USUB 88 (B)H     | USCA,J         | USCC WCS ADRS B7 L    | USCC           | USCE REC ID DB5 H       | USCE,C,H,K     |
| USCA USUB 88 (1)H     | USCF,J,L,A,M   | USCC WCS ADRS 88 (1)H | USCC,C         | USCE REC ID DB6 H       | USCE,C,K,H     |
| USCA USUB 81 (B)H     | USCF,A         | USCC WCS ADRS 88 L    | USCC           | USCE REC ID DB7 H       | USCE,C,K,H     |
| USCA USUB 01 (1)H     | USCF,A,J,L,M   | USCC WCS ADRS 89 (1)H | USCC,C         | USCE REC ID DB8 H       | USCE,C,H,K     |
| USCB +3V A H          | USCB           | USCC WCS ADRS 89 L    | USCC           | USCE REC ID DB9 H       | USCE,C,H,K     |
| USCB +3V B H          | USCJ,H,E,B     | USCC WCS ADRS 10 (1)H | USCC,C         | USCE REC ID D10 H       | USCE,C,H,K     |
| USCB +3V C H          | USCK,H,M,B     | USCC WCS ADRS 10 L    | USCC           | USCE REC ID D11 H       | USCE,C,H,K     |
| USCB +3V D H          | USCC,F,B       | USCC WCS ADRS 11 (1)H | USCC,C         | USCE REC ID D12 H       | USCE,C,H,K     |
| USCB +3V E H          | USCL,B         | USCC WCS ADRS 11 L    | USCC           | USCE REC ID D13 H       | USCC,E,K       |
| USCB +3V H H          | USCC,J,B       | USCC WCS ADRS 12 (1)H | USCC,C         | USCE REC ID D14 H       | USCC,E,K       |
| USCB +3V I H          | USCE,M,B       | USCC WCS ADRS 12 L    | USCC           | USCE REC ID D15 H       | USCE,K,C       |
| USCB +3V J H          | USCJ,B         | USCC WCS ADRS 13 (B)H | USCC           | USCE UPC BREAK L        | USCH,E         |
| USCB +3V K H          | USCJ,B         | USCC WCS ADRS 13 (1)H | USCC,E,D       | USCE USTACK H           | USCJ,E         |
| USCB +3V L H          | USCL,B         | USCC WCS ADRS 14 (B)H | USCC           | USCE WCS ADDRESS L      | USCE,C         |
| USCB +3V M H          | USCB           | USCC WCS ADRS 14 (1)H | USCC,E,D       | USCE WCS MEM AVAIL L    | USCE           |
| USCB ABDRT CYCLE H    | USCB           | USCC WCS ADRS COUNT H | USCC           | USCE WCS MEM DATA L     | USCE           |
| USCB CLK T8 A H       | USCA,J,B,K     | USCC WCS ADRS 06 L    | USCC           | USCE WCS WR CYCLE H     | USCE           |
| USCB CLK T8 B H       | USCC,J,B,A     | USCC WCS ADRS WRITE H | USCC           | USCE WR WCS H           | USCE,E         |
| USCB CLK T8 L         | USCF,B,E       | USCC WCS PAR INV (B)H | USCC           | USCF +3V F H            | USCH,F         |
| USCB CLK T125 H       | USCK,E,B       | USCC WCS PAR INV (1)H | USCC,C         | USCF EH BR (1F:1B) 88 L | USCF,R         |
| USCB CLK T158 H       | USCC,H,B,M     | USCD ID DATA 88 H     | USCE,D         | USCF EH BR (1F:1B) 81 L | USCF,R         |
| USCB CLK T158 L       | USCC,F,B,H     | USCD ID DATA 81 H     | USCE,D         | USCF EN BR (1F:1B) 82 L | USCF,R         |
| USCB CLK T58 A L      | USCB,M         | USCD ID DATA 82 H     | USCE,D         | USCF EN BR (1F:1B) 83 L | USCF,R         |
| USCB CLK T58 B L      | USCB,M         | USCD ID DATA 83 H     | USCE,D         | USCF EN BR (1F:1B) 84 L | USCF,R         |
| USCB CLK T58 C L      | USCC,B,F,M     | USCD ID DATA 84 H     | USCE,D         | USCF EN BR (F:B) 88 L   | USCF,R         |
| USCB CLK T75 A L      | USCB,M         | USCD ID DATA 85 H     | USCE,D         | USCF EN BR (F:B) 81 L   | USCF,R         |
| USCB CLK T75 B L      | USCB,M         | USCD ID DATA 86 H     | USCE,D         | USCF EN BR (F:B) 82 L   | USCF,R         |
| USCB CLR UTRAP L      | USCB           | USCD ID DATA 87 H     | USCE,D         | USCF EN NUA 88 L        | USCF,R         |
| USCB CLR UNORD (B)H   | USCB,A         | USCD ID DATA 88 H     | USCE,D         | USCF EN NUA 81 L        | USCF,R         |
| USCB CLR UNORD H      | USCB           | USCD ID DATA 89 H     | USCE,D         | USCF EN NUA 82 L        | USCF,R         |
| USCB MNT RET SEQ (0)H | USCB,A         | USCD ID DATA 10 H     | USCE,D         | USCF EN NUA 83 L        | USCF,R         |
| USCB STALL H          | USCJ,B,S       | USCD ID DATA 11 H     | USCE,D         | USCF EN NUA 84 L        | USCF,R         |
| USCB T75 H            | USCJ,B         | USCD ID DATA 12 H     | USCE,D         | USCF UPCS 00 (B)H       | USCF           |
| USCB UTRAP H          | USCJ,B,S       | USCD ID DATA 13 H     | USCE,D         | USCF UPCS 00 (1)H       | USCF           |
| USCC CLK WCS ADRS H   | USCC           | USCD ID DATA 14 H     | USCE,D         | USCF UPCS 01 (0)H       | USCF           |
| USCC CLR ADRS CHT L   | USCC           | USCD ID DATA 15 H     | USCE,D         | USCF UPCS 01 (1)H       | USCF           |
| USCC WCS ADRS 88 (1)H | USCC,C         | USCE BUF 0US ID WR H  | USCJ,K,E       | USCF UPCS 02 (0)H       | USCF           |
| USCC WCS ADRS 88 L    | USCC           | USCE BUF BUS ID WR L  | USCJ,H,E,C     | USCF UPCS 02 (1)H       | USCF           |
| USCC WCS ADRS 01 (1)H | USCC,C         | USCE CS WR (31:80) H  | USCE,S         | USCF UPCS 03 (0)H       | USCF           |
| USCC WCS ADRS 01 L    | USCC           | USCE CS WR (63:32) H  | USCE,S         | USCF UPCS 03 (1)H       | USCF           |
| USCC WCS ADRS B2 (1)H | USCC,C         | USCE CS WR (95:64) H  | USCE,S         | USCF UPCS 04 (B)H       | USCF           |

NOTES:  
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION.

REVISIONS  
CHK CHANGE NO. REV

digital

DATE 22-SEP-83  
CHK'D.

DATE 22-SEP-83  
SHEET 1 OF 1

DATE 22-SEP-83  
NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0

ENGINEER J. J. J.

DATE 22-SEP-83

BOARD LOCATION: RE23

TITLE: USC FORWARD REFERENCE

SIZE CODE K CS

NUMBER M7476-0-USCW

REV. A

87654321

SIGNAL NAME PAGE NUMBER(S)

USCF UPCS V 04 (1)H  
USCF UPCS V 05 (0)H  
USCF UPCS V 05 (1)H  
USCF UPCS V 06 (0)N  
USCF UPCS V 06 (1)N  
USCF UPCS V 07 (0)N  
USCF UPCS V 07 (1)N  
USCF UPCS V 08 (0)H  
USCF UPCS V 08 (1)H  
USCF UPCS V 09 (0)H

USCF UPCS V 09 (1)H  
USCF UPCS V 10 (0)H  
USCF UPCS V 10 (1)H  
USCF UPCS V 11 (0)H  
USCF UPCS V 11 (1)H  
USCF UPCS V 12 (1)N  
USCH BRK MAT L  
USCH BRK REG 00 (1)H  
USCH BRK REG 01 (1)H  
USCH BRK REG 02 (1)H

USCH BRK REG 03 (1)H  
USCH BRK REG 04 (1)H  
USCH BRK REG 05 (1)H  
USCH BRK REG 06 (1)H  
USCH BRK REG 07 (1)H  
USCH BRK REG 08 (1)H  
USCH BRK REG 09 (1)H  
USCH BRK REG 10 (1)H  
USCH BRK REG 11 (1)H  
USCH BRK REG 12 (1)H

USCH SYNC PULSE H  
USCH WR BRK H  
USCJ INIT (0)H  
USCJ INIT (1)H  
USCJ INIT SEQ (0)H  
USCJ INIT SEQ (1)H  
USCJ MAINT RET (0)H  
USCJ MAINT RET (1)H  
USCJ PRIOR 00 L  
USCJ PRIOR 01 L

USCJ PRIOR 02 L  
USCJ STALL (0)H  
USCJ STALL (1)H  
USCJ SYS INIT A L  
USCJ SYS INIT B L  
USCJ UNX SEL 0 H  
USCJ UNX SEL 1 H  
USCJ USPBB H  
USCJ USP01 N  
USCJ USP02 H

SIGNAL NAME PAGE NUMBER(S)

USCJ USP03 H  
USCJ USTACK DEC L  
USCJ USTACK IHC L  
USCJ USTACK LOAD H  
USCJ UTRAP (0)H  
USCJ UTRAP (1)H  
USCJ UTRAP PUSH H  
USCK USTACK D00 (1)H  
USCK USTACK D01 (1)H  
USCK USTACK D02 (1)H

USCK USTACK D03 (1)H  
USCK USTACK D04 (1)H  
USCK USTACK D05 (1)H  
USCK USTACK D06 (1)H  
USCK USTACK D07 (1)H  
USCK USTACK D08 (1)H  
USCK USTACK D09 (1)H  
USCK USTACK D10 (1)H  
USCK USTACK D11 (1)H  
USCK USTACK D12 (1)H

USCK USTACK D13 (1)H  
USCK USTACK D14 (1)H  
USCK USTACK D15 (1)H  
USCL CALL 03 L  
USCM BUF UPC 00 H  
USCM BUF UPC 01 H  
USCM BUF UPC 02 H  
USCM BUF UPC 03 H  
USCM BUF UPC 04 H  
USCM BUF UPC 05 H

USCM BUF UPC 06 H  
USCM BUF UPC 07 H  
USCM BUF UPC 08 H  
USCM BUF UPC 09 H  
USCM BUF UPC 10 H  
USCM BUF UPC 11 H  
USCM BUF UPC 12 H  
USCM IBUF EH (B7:00) L  
USCM UPC LDOP (0)H  
USCM BRMX (13:1B) 00 H

USCH BRMX (13:1B) 01 H  
USCH BRMX (13:1B) 02 H  
USCH BRMX (13:1B) 03 H  
USCH BRMX (7:8) 00 H  
USCH BRMX (7:8) 01 H  
USCH BRMX (7:8) 02 H  
USCP BRBIT (1F:1C) 00 H  
USCP BRBIT (1F:1C) 01 H  
USCP BRBIT (1F:1C) 02 H  
USCP BRBIT (1F:1C) 03 N

USCJ,K  
USCK,J  
USCJ  
USCJ,K  
USCP,J  
USCT,J  
USCB,J  
USCR,D,K  
USCR,D,K  
USCR,D,K

USCR,D,K  
USCR,D,K  
USCR,D,K  
USCR,D,K  
USCR,D,K  
USCR,D,K  
USCR,D,K  
USCR,D,K  
USCR,D,K  
USCR,D,K

USCD,K  
USCD,K  
USCD,K  
USCL  
USCH,M,F,T  
USCH,M,F,T  
USCH,M,F,T  
USCH,M,F,T  
USCH,M,F,T  
USCH,M,F,T

USCN,M,T,F  
USCN,M,T,F  
USCN,M,T,F  
USCN,M,T,F  
USCN,M,T,F  
USCN,M,T,F  
USCF,H,M,T  
USCM,S  
USCL,M  
USCH,R

USCN,R  
USCN,R  
USCH,R  
USCH,R  
USCH,R  
USCH,R  
USCT,P,R  
USCT,P,R  
USCT,P,R  
USCT,P,R

SIGNAL NAME PAGE NUMBER(S)

USCP BRBIT (1F:1C) 04 N  
USCP SEL RETURN UPC H  
USCP SEL UPCS V N  
USCP UBEN EH (1F:10) H  
USCP UBEN EH (F:B) H  
USCP UBEN EH (F:B) L  
USCP UJUMP 00 L  
USCP UJUMP 01 L  
USCP UJUMP 02 L  
USCP UJUMP 03 L

USCP UJUMP 04 L  
USCR BUS MUA 05 L  
USCR BUS MUA 06 L  
USCR BUS MUA 07 L  
USCR BUS MUA 08 L  
USCR BUS MUA 09 L  
USCR BUS MUA 10 L  
USCR BUS MUA 11 L  
USCR BUS MUA 12 L  
USCR RETURN UPC 00 H

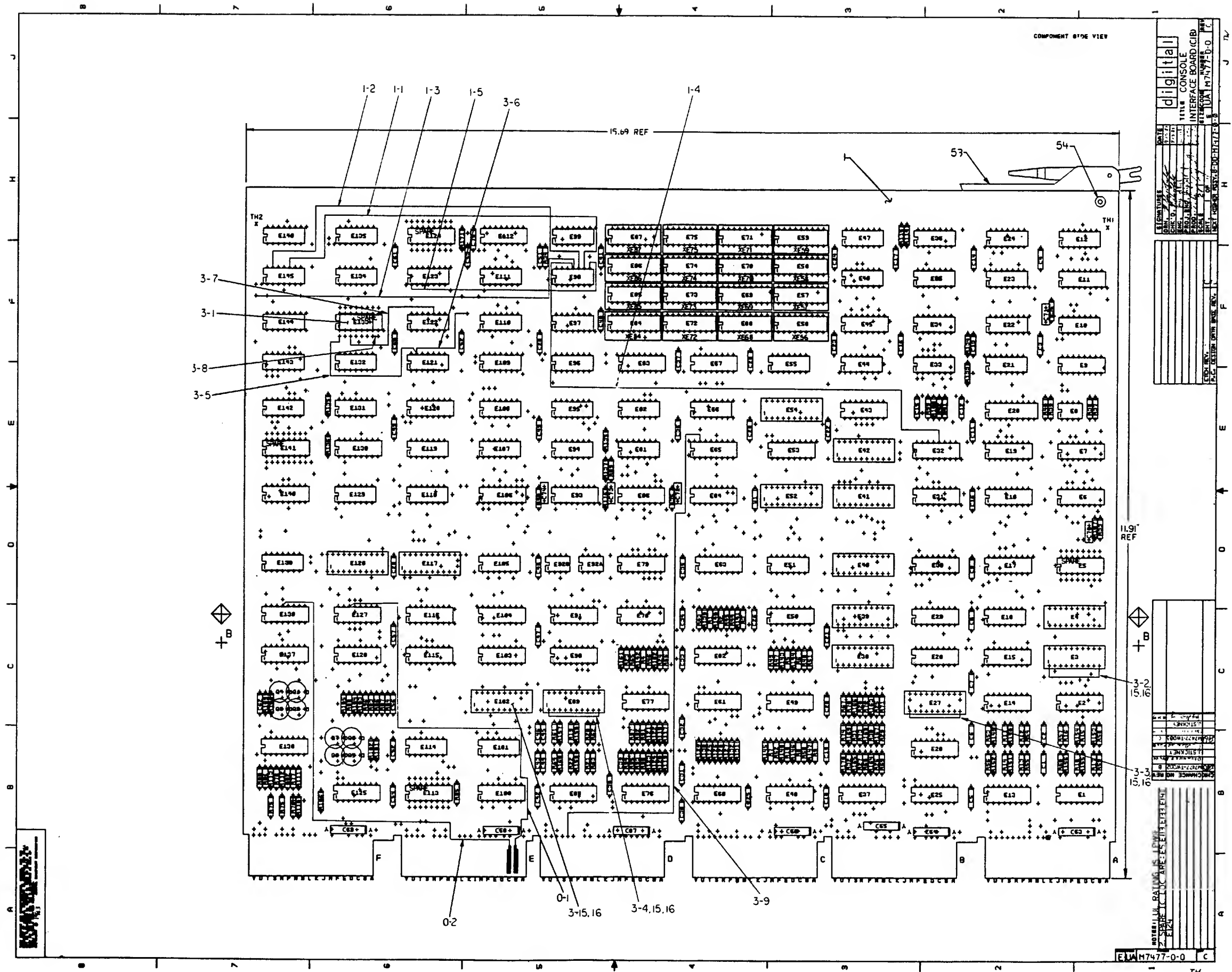
USCR RETURN UPC 01 H  
USCR RETURN UPC 02 H  
USCR RETURN UPC 03 H  
USCR RETURN UPC 04 H  
USCS VBUS (47:24) H  
USCT VBUS (71:48) H  
USCT VBUS (95:72) H  
USCT VBUS CLK H  
USCT VBUS LOAD L  
V H

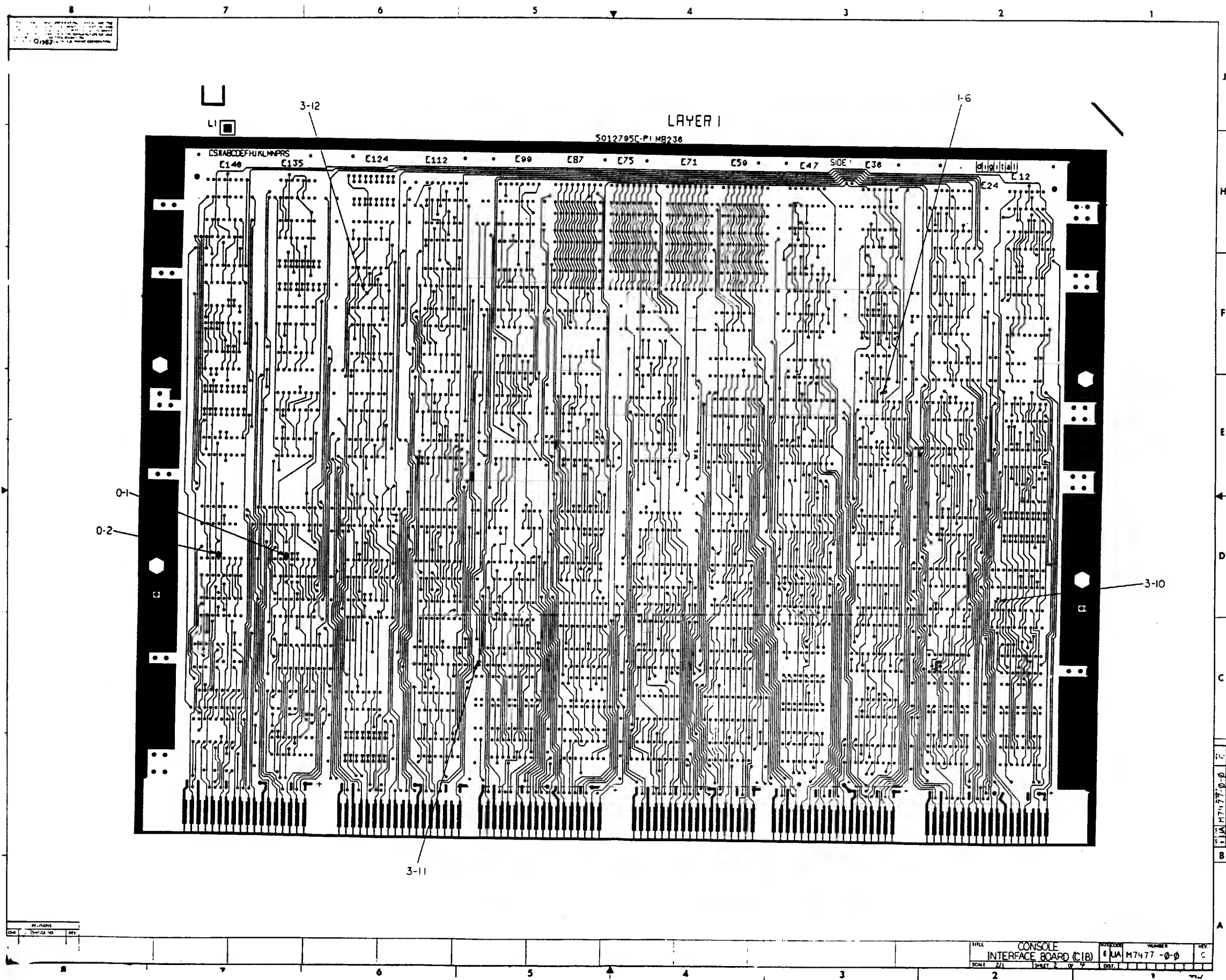
USCT,P,R  
USCP,R  
USCF,P,R  
USCF,T,P  
USCF,F,T  
USCF,F  
USCF,F  
USCF,F  
USCF,F

USCF,F  
USCR,L  
USCR,L  
USCR,L  
USCR,L  
USCR,L  
USCR,L  
USCR,L  
USCR,L  
USCF,R

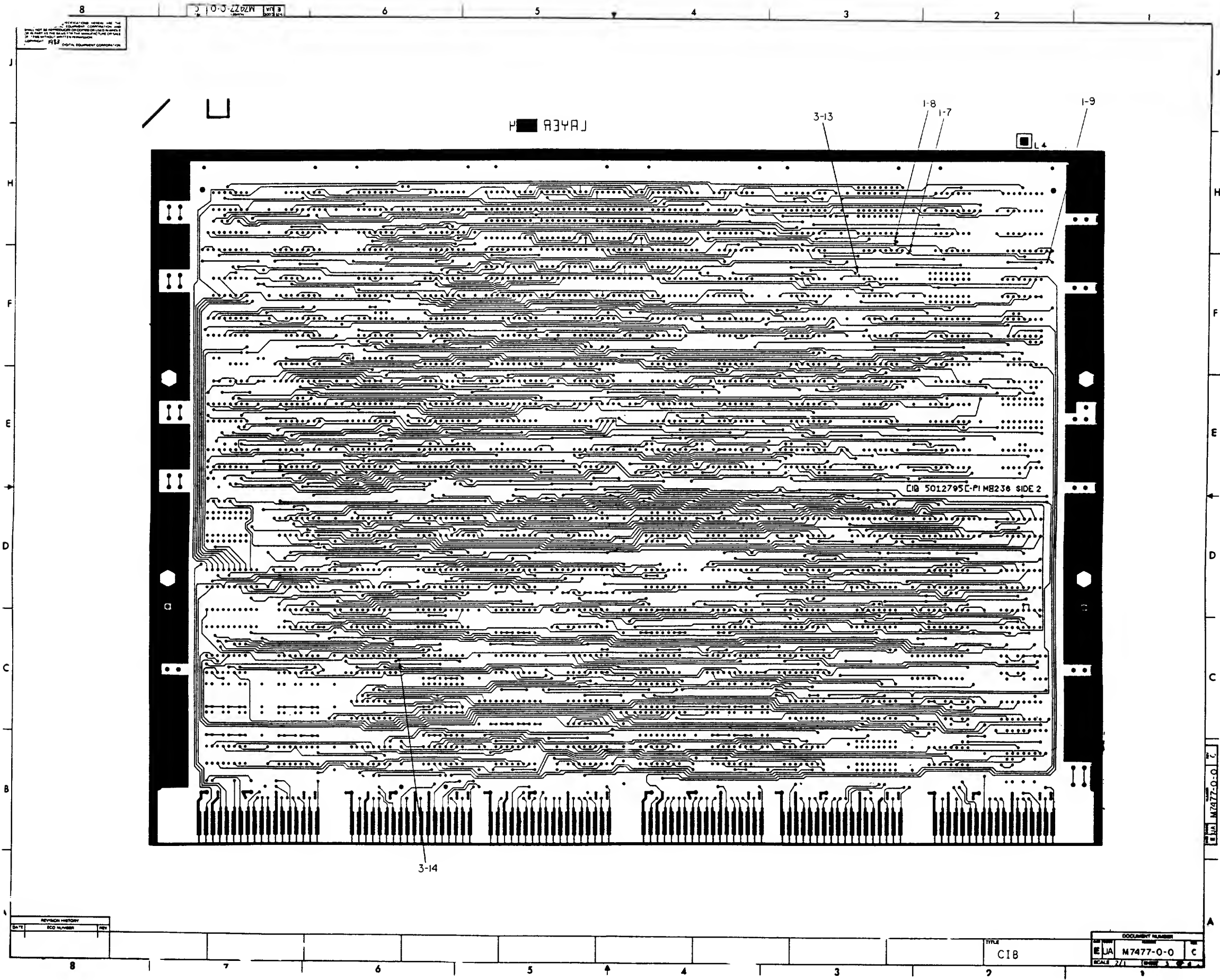
USCF,R  
USCF,R  
USCF,R  
USCF,R  
USCS  
USCT,S  
USCT  
USCT,S  
USCT,S  
USCS,H

| DRAWING NO.  | NO. OF SHTS. | PART NO. | DESCRIPTION       | REVISIONS |      |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--------------|----------|-------------------|-----------|------|----------------------|------|------|----------|--|----------|--|-------|--|-----------|--|--------|--|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  | —            | M7476-00 | USC PART REVISION | AI        | BI   |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E-UA-M7476-0-0   | 2            |          | UNIT ASSEMBLY     | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-PL-M7476-0-DBP   | 2            |          | PART LIST         | A         | B    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-PC-M7476-0-DBI   | —            |          | PC DATA BASE      | AI        | AI   |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B-DD-5016103-0-0   | 1            |          | DRAWING DIRECTORY | A         | E    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-DBS   | —            |          | SUDS DATA BASE    | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCA  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCB  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCC  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCD  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCE  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCF  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCH  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCJ  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCK  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCL  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCM  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCN  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCP  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCR  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCS  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCT  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCV  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCW  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCX  | 1            |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-CS-M7476-0-USCU  |              |          | SCHEMATIC         | A         | A    |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NOTES:   |              |          | REVISIONS         |           | DATE | CHG NO.              | INIT | REV. |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |              |          |                   |           | 9/83 |                      | A    |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |              |          |                   |           | 1/94 |                      | B    |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |              |          |                   |           |      |                      |      |      |          |  |          |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| "THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.<br><br>COPYRIGHT© 1983 DIGITAL EQUIPMENT CORPORATION |              |          | digital           |           |      | USED ON OPTION/MODEL |      |      | DRN.     |  | 28-50-83 |  | TITLE |  | USC       |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |              |          |                   |           |      |                      |      |      | CHK'D    |  | 1-28-83  |  |       |  |           |  |        |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |              |          |                   |           |      |                      |      |      | ENG.     |  | 10/17/83 |  | SIZE  |  | CODE      |  | NUMBER |  | REV. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |              |          |                   |           |      |                      |      |      | 10/18/83 |  | B        |  | DD    |  | M7476-0-C |  | B      |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |





CONSOLE  
INTERFACE BOARD (CIB)  
EUA M7477-0-0  
SCALE 2/1  
REV C



REVISIONS: SEE THE  
DRAWING FOR THE  
LATEST REVISIONS.  
REVISIONS: SEE THE  
DRAWING FOR THE  
LATEST REVISIONS.

| REV | DATE | BY | CHKD |
|-----|------|----|------|
| 1   |      |    |      |

| TITLE     |  | DOCUMENT NUMBER |   |
|-----------|--|-----------------|---|
| CIB       |  | 7477-0-0        | C |
| SCALE 2/1 |  | SHEET 3 OF 4    |   |





| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                   | QTY PER VARIATION | REFERENCE DESIGNATOR                |
|------|------|------------------|-------------|---------|-------------------------------|-------------------|-------------------------------------|
|      |      |                  |             |         | VARIATION REVISION LEVEL:     | 00<br>D1          |                                     |
| 1    | 1    | D-MD-5012795-0-0 | 5012795-00  |         | CONSOLE INTERFACE BOARD       | 1                 |                                     |
| 2    | 2    |                  | 1000016-00  |         | 100.0 MMF 100V 5%200PPM MICA  | 3                 | C70,C73,C74                         |
| 3    | 3    |                  | 1012084-01  |         | 8 MFD 25V +75-10% AL EL       | 7                 | C63-C69                             |
| 4    | 4    |                  | 1012784-00  |         | .047 MFD 50V +80-20% CER      | 64                | C1-C26,C28-C62,C71,C72,C75          |
| 5    | 5    |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF          | 12                | R37-R40,R119,R120,R123-R126,        |
| 6    | 6    |                  | 1313469-00  |         | 240.0 .25 W 5.0 % CF          | 64                | CONT R129,R130                      |
| 7    | 7    |                  | 1300250-00  |         | 150.0 .25 W 5.0 % CF          | 8                 | R1-R32,R139-R170                    |
| 8    | 8    |                  | 1301322-00  |         | 180.0 .25 W 5.0 % CF          | 5                 | CONT R117,R118,R121,R122,R127,R128, |
| 9    | 9    |                  | 1301972-00  |         | 270.0 .25 W 5.0 % CF          | 32                | R131,R132                           |
| 10   | 10   |                  | 1300309-00  |         | 390.0 .25 W 5.0 % CF          | 7                 | R101,R108,R133,R135,R137            |
| 11   | 11   |                  | 1301424-00  |         | 680.0 .25 W 5.0 % CF          | 3                 | R43-R74                             |
| 12   | 12   |                  | 1300365-00  |         | 1.0 K .25 W 5.0 % CF          | 34                | R41,R99,R102,R109,R134,R136,R138    |
| 13   | 13   |                  | 1312930-00  |         | 5.10 K .25 W 5.0 % CF         | 2                 | CONT R36,R42,R100                   |
| 14   | 14   |                  | 1300479-00  |         | 10.0 K .25 W 5.0 % CF         | 1                 | R34,R75-R88,R91-R98,R103-R107,      |
| 15   | 15   |                  | 1302391-00  |         | 20.0 K .25 W 5.0 % CF         | 3                 | R110-R115                           |
| 16   | 16   |                  | 1311003-01  |         | R NETWORK 14-180 14-390 16PIN | 3                 | R33,R116                            |
| 17   | 17   |                  | 1300005-01  |         | R NETWORK 13-1K 5.0 % 14PIN   | 1                 | R171                                |
| 18   | 18   |                  | 1511686-00  |         | DEC5433 FET N 350MW 10 25 1A  | 8                 | R35,R89,R90                         |
| 19   | 19   |                  | 1921305-01  |         | 74F00 NAND GATE,QUAD,2-IN     | 5                 | E29,E43,E53                         |
| 20   | 20   |                  | 1921306-01  |         | 74F02 NOR GATE,QUAD,2-IN      | 5                 | E51                                 |
| 21   | 21   |                  | 1921307-01  |         | 74F04 HEX INVERTER            | 10                | Q1-Q8                               |
| 22   | 22   |                  | 1921308-01  |         | 74F08 AND GATE,QUAD,2-IN      | 2                 | CONT E24,E46,E119,E121,E123         |
| 23   | 23   |                  | 1921309-01  |         | 74F10 NAND GATE,TRIPLE,3-I    | 1                 | E12,E35,E95,E118,E134               |
| 24   | 24   |                  | 1921310-01  |         | 74F11 AND GATE,TRIPLE,3-IN    | 2                 | E16,E44,E47,E101,E105,E107,E111,    |
| 25   | 25   |                  | 1921311-01  |         | 74F20 NAND GATE,DUAL,4-IN     | 2                 | CONT E114,E139,E146                 |
| 26   | 26   |                  | 1912813-00  |         | LS27 NOR GATE-TRIPLE 3IN      | 1                 | E97,E129                            |

| REVISION HISTORY |             |     | BASIC PART NO: M7477    |  | DRN: D.FOURNIER       |  | DATE: 21-MAR-84      |  | D I G I T A L           |      |             |     |
|------------------|-------------|-----|-------------------------|--|-----------------------|--|----------------------|--|-------------------------|------|-------------|-----|
| ENG              | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D: T.MCCULLOUGH   |  | DATE: 21-MAR-84      |  | TITLE PARTS LIST        |      |             |     |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  | DES.ENG: J.STICKNEY   |  | DATE: 21-MAR-84      |  | DOCUMENT NUMBER         |      |             |     |
| JS               | M7477-TW001 | B   | [A] 00                  |  | RESP.ENG.: J.STICKNEY |  | DATE: 21-MAR-84      |  | SIZE                    | CODE | NUMBER      | REV |
| JS               | M7477-TW003 | C   | [B]                     |  | MFG.ENG.: MIKE KRYZAK |  | DATE: 21-MAR-84      |  | K                       | PL   | M7477-0-D8P | C   |
|                  |             |     | [C]                     |  | ASSEMBLY NUMBER:      |  | TOP DOCUMENT NUMBER: |  | RELEASE DATE: 30-AUG-84 |      |             |     |
|                  |             |     | [D]                     |  | E-UA-M7477-0-0        |  | 8-DD-M7477-0-00      |  | FILE NAME: Z3941C.PLS   |      |             |     |
|                  |             |     | [E]                     |  |                       |  |                      |  | EDIT # 7                |      |             |     |
|                  |             |     | [F]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [G]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [H]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [I]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [J]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [K]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [L]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [M]                     |  |                       |  |                      |  |                         |      |             |     |
|                  |             |     | [N]                     |  |                       |  |                      |  |                         |      |             |     |

"THIS DRAWING AND THE SPECIFICATIONS CONTAINED HEREIN ARE CONFIDENTIAL AND PROPRIETARY. THEY ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. THIS IS AN UNPUBLISHED WORK PROTECTED UNDER THE FEDERAL COPYRIGHT LAWS."



| AUTOMATED BY: PRIEST,SKT557 |      | MIN          |             | DESCRIPTION |                                   | QTY | PER VARIATION | REFERENCE DESIGNATOR  |
|-----------------------------|------|--------------|-------------|-------------|-----------------------------------|-----|---------------|---|
| LINE                        | ITEM | TOP DOCUMENT | PART NUMBER | REV         | VARIATION REVISION LEVEL:         | 00  |               |   |
|                             |      |              |             |             |                                   | D1  |               |   |
| 27                          | 27   |              | 1921312-01  |             | 74F32 OR GATE,QUAD,2-IN           | 6   |               | E10,E21-E23,E82,E131  |
| 28                          | 28   |              | 1912746-01  |             | 74S37-18BUFFER-GATE               | 1   |               | E66   |
| 29                          | 29   |              | 1911712-00  |             | 74S51 AND-OR GATE-INVERT D        | 1   |               | E122  |
| 30                          | 30   |              | 1912820-00  |             | LS51 A-0-I GATE 2-WIDE 2I         | 2   |               | E110,E144   |
| 31                          | 31   |              | 1921313-01  |             | 74F64 AND OR INVERT GATE,4-       | 3   |               | E33,E142,E143   |
| 32                          | 32   |              | 1921314-01  |             | 74F74 FF-D,DUAL,POS.,EDGE         | 7   |               | E34,E81,E94,E109,E135,E145,E96  |
| 33                          | 33   |              | 1912834-00  |             | LS112 FF-JK,DUAL,EDGE TRIG        | 1   |               | E130  |
| 34                          | 34   |              | 1910436-00  | DEC         | 74123 ONE SHOT-DUAL,RETRIG        | 1   |               | E93   |
| 35                          | 35   |              | 1912837-00  |             | LS123 ONE SHOT-DUAL,RETRIG        | 2   |               | E80,E112  |
| 36                          | 36   |              | 1921316-01  |             | 74F138 DECODER/DEMUX,1-OF-8       | 1   |               | E120  |
| 37                          | 37   |              | 1921317-01  |             | 74F139 DECODER,DUAL,1-OF-4        | 3   |               | E9,E11,E67  |
| 38                          | 38   |              | 1921319-01  |             | 74F153 MUX,DUAL,4-IN              | 1   |               | E78   |
| 39                          | 39   |              | 1921320-01  |             | 74F157 MUX,QUAD,2-IN              | 8   |               | E2,E15,E50,E63,E90,E91,E125,E136  |
| 40                          | 40   |              | 1911330-00  |             | 74173 FF-D QUAD,TRISTATE          | 1   |               | E106  |
| 41                          | 41   |              | 1921323-01  |             | 74F174 FF-D,HEX                   | 3   |               | E17,E45,E83   |
| 42                          | 42   |              | 1921324-01  |             | 74F175 FF-D,QUAD                  | 2   |               | E30,E140  |
| 43                          | 43   |              | 1921328-01  |             | 74F251 MUX,8-IN                   | 16  |               | E6,E7,E18,E19,E31,E32,E64,E65,<br>E103,E104,E115,E116,E126,E127,<br>E137,E138 |
| 44                          | 44   |              | 1921330-01  |             | 74F257 MUX,QUAD,2-IN              | 5   | CONT          | E14,E25,E61,E79,E100  |
| 45                          | 45   |              | 1912863-00  |             | LS273 FF-D OCTAL W/CLEAR          | 5   | CONT          | E38-E40,E117,E128   |
| 46                          | 46   |              | 1910406-00  |             | 75451 DRIVER,PERIPH,DUAL,         | 3   |               | E8,AE92,8E92  |
| 47                          | 47   |              | 1913788-00  |             | 26S10 TRANSCEIVER,8US,QUA         | 9   | CONT          | E1,E13,E26,E37,E48,E49,E62,E77,<br>E88  |
| 48                          | 48   |              | 1911579-00  |             | 8641 TRANSCEIVER,8US,QUA          | 1   |               | E28   |
| 49                          | 49   |              | 1921720-01  |             | 10H125 TRANSLATOR ECL TO TTL      | 2   |               | E60,E76   |
| 50                          | 50   |              | 1912730-00  | DC          | 003 INTERRUPT,2 CIRCUIT           | 1   |               | E20   |
| 51                          | 51   |              | 1912729-00  | DC          | 004 PROTOCOL,REG. SELECT          | 1   |               | E4  |
| 52                          | 52   |              | 1913040-00  | DC          | 005 TRANSCEIVER 48IT              | 4   |               | E41,E42,E52,E54   |
| 53                          | 53   |              | 1216988-02  |             | HANDLE,MODULE,HEX TWO EJECTORS    | 1   |               |   |
| 54                          | 54   |              | 9000024-01  |             | EYELET,ROLLED 0.1210DX0.192       | 12  |               |   |
| 55                          | 55   |              | 1215006-03  |             | SKT,IC 18PIN DIP TIN SOLD         | 16  |               | XE56-XE59,XE68-XE75,XE84-XE87   |
| 56                          | 56   |              | 23144F1-00  |             | F1-01                             | 1   |               | E56   |
| 57                          | 57   |              | 23145F1-00  |             | F1-01                             | 1   |               | E68   |
| 58                          | 58   |              | 23146F1-00  |             | F1-01                             | 1   |               | E84   |
| 59                          | 59   |              | 23147F1-00  |             | F1-01                             | 1   |               | E72   |
| 60                          | 60   |              | 23148F1-00  |             | F1-01                             | 1   |               | E58   |
| 61                          | 61   |              | 23149F1-00  |             | F1-01                             | 1   |               | E70   |
| 62                          | 62   |              | 23150F1-00  |             | F1-01                             | 1   |               | E86   |
| 63                          | 63   |              | 23151F1-00  |             | F1-01                             | 1   |               | E74   |
| 64                          | 64   |              | 23236F1-00  |             | F1-01                             | 1   |               | E57   |
| 65                          | 65   |              | 23237F1-00  |             | F1-01                             | 1   |               | E69   |
| 66                          | 66   |              | 23238F1-00  |             | F1-01                             | 1   |               | E85   |
| 67                          | 67   |              | 23239F1-00  |             | F1-01                             | 1   |               | E73   |
| 68                          | 68   |              | 9105740-55  |             | WIRE(WRAP) 30AWG KYNAR UL14       | A/R |               |   |
| 69                          | 69   |              | 9009185-00  |             | JUMPER, WIRE, INSULATED, 8BLACK 8 | 1   |               | W1  |
| 70                          | 70   |              | 1616653-00  |             | DELAY= 50NS,10TAPS WITH TTLBU     | 1   |               | E133  |
| 71                          | 71   |              | 1920442-01  |             | 74F374 FF-D,OCTAL,TRI-STATE       | 4   |               | E3,E27,E89,E102   |

|   |   |   |   |   |   |   |                               |           |      |      |      |                 |     |
|---|---|---|---|---|---|---|-------------------------------|-----------|------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE                         | SECTION A | OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   | CONSOLE INTERFACE BOARD (CIB) |           |      | K    | PL   | M7477-0-DBP     | C   |

AUTOMATED BY PRTLST.5R(55)

PARTS LIST

SHEET A3 OF A3

LINE ITEM TOP DOCUMENT

MIN  
PART NUMBER REV DESCRIPTION

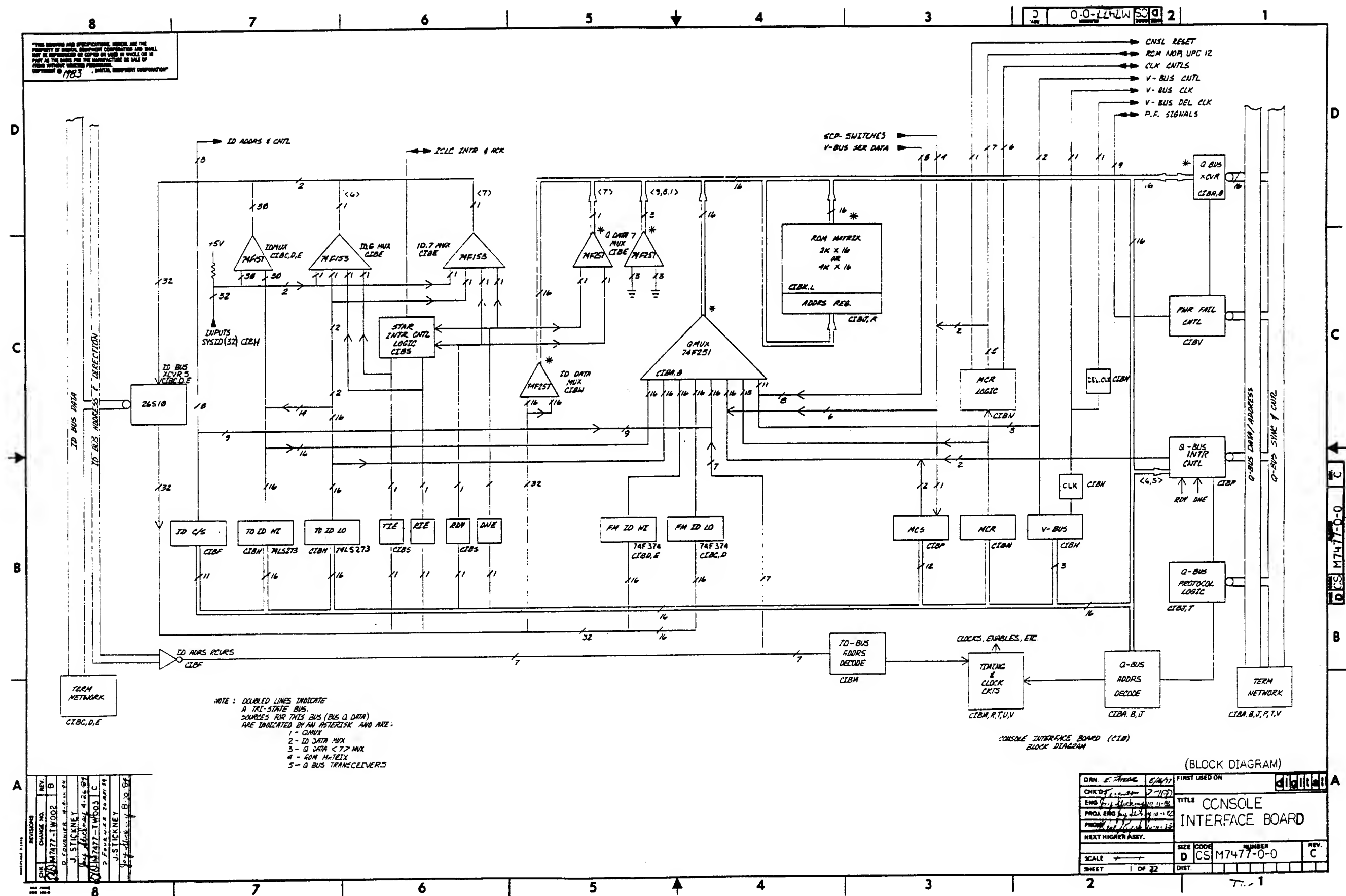
QTY PER VARIATION  
00  
D1

REFERENCE DESIGNATOR

VARIATION REVISION LEVEL:

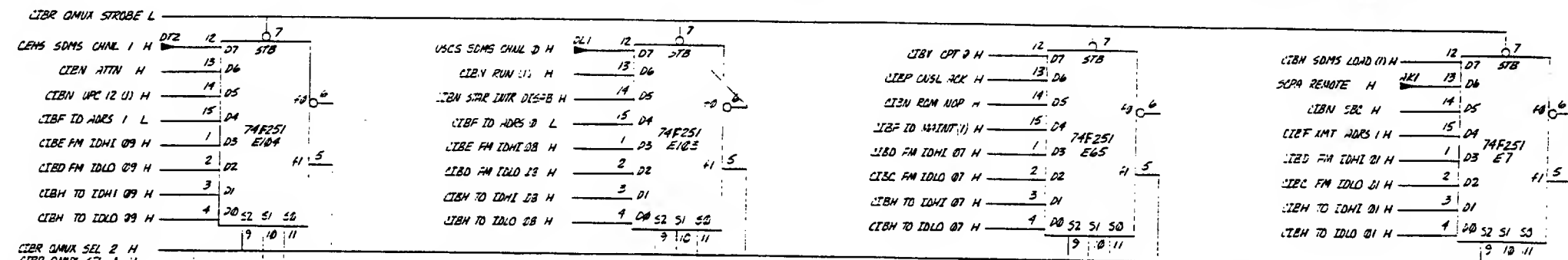
72 NOTE: SPARE I.C. LOCATIONS ARE E5,E113,E124,E141

|               |                               |                |      |      |                 |     |
|---------------|-------------------------------|----------------|------|------|-----------------|-----|
| D I G I T A L | TITLE                         | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|               | CONSOLE INTERFACE BOARD (CIB) |                | K    | PL   | M7477-0-DBP     | C   |



THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION

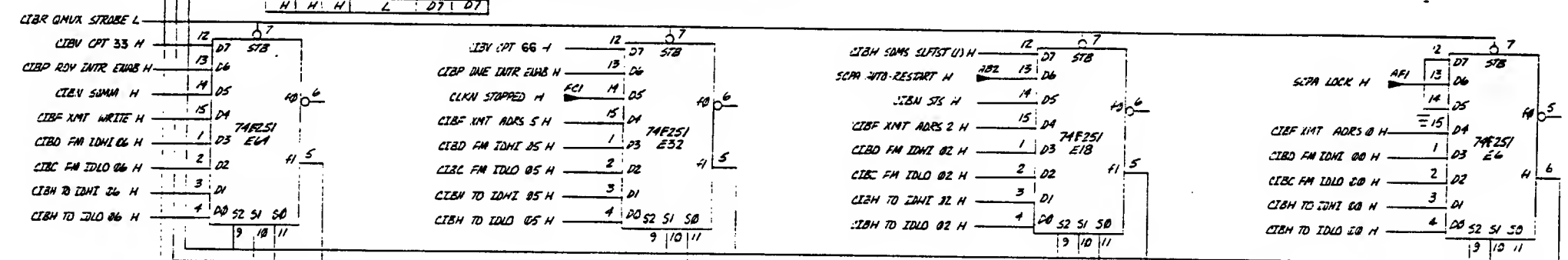
D  
C  
B  
A



FUNCTION TABLE 74F251

| INPUTS |        |   | OUTPUTS |    |
|--------|--------|---|---------|----|
| SELECT | STROBE | S | V       | W  |
| C B A  | X      | X | Z       | Z  |
| L L L  | L      | L | D0      | D0 |
| L L H  | L      | L | D1      | D1 |
| L H L  | L      | L | D2      | D2 |
| L H H  | L      | L | D3      | D3 |
| H L L  | L      | L | D4      | D4 |
| H L H  | L      | L | D5      | D5 |
| H H L  | L      | L | D6      | D6 |
| H H H  | L      | L | D7      | D7 |

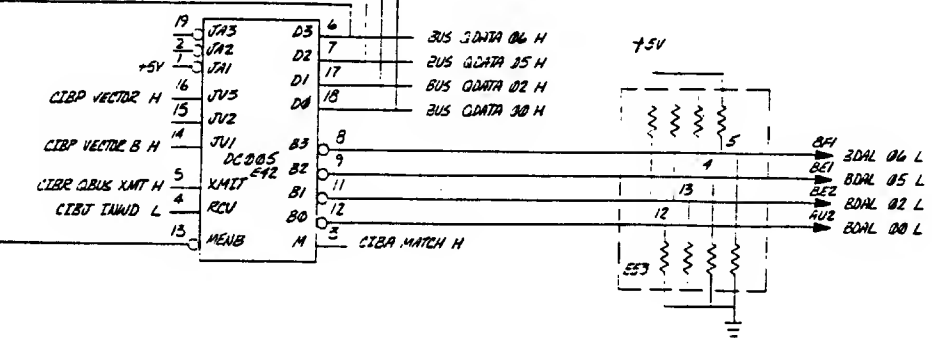
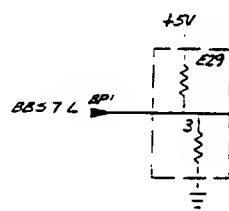
H = HIGH LEVEL, L = LOW LEVEL  
X = IRRELEVANT, Z = HIGH IMPEDANCE (DATA)  
D0, D1, ..., D7 = THE LEVEL OF THE RESPECTIVE D INPUT



DC0005 CONTROL

| RECEIVE | TRANSMIT | MODE                      |
|---------|----------|---------------------------|
| L       | L        | DISABLE: BUS, DATA HI - Z |
| L       | H        | XMT: BUS ← DATA           |
| H       | L        | RCV: DATA ← BUS           |
| H       | H        | RCV: DATA ← BUS           |

NOTE: ALL UNMARKED RESISTORS ARE DIP LSI-11 BUS TERMINATORS PART NO. 15-11003-01 VALUES ARE 180Ω TO +5V AND 390Ω TO GND



| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |

(CMUX<9:5>, 2,10 QBUS TRANSCEIVERS (SLOT 29))

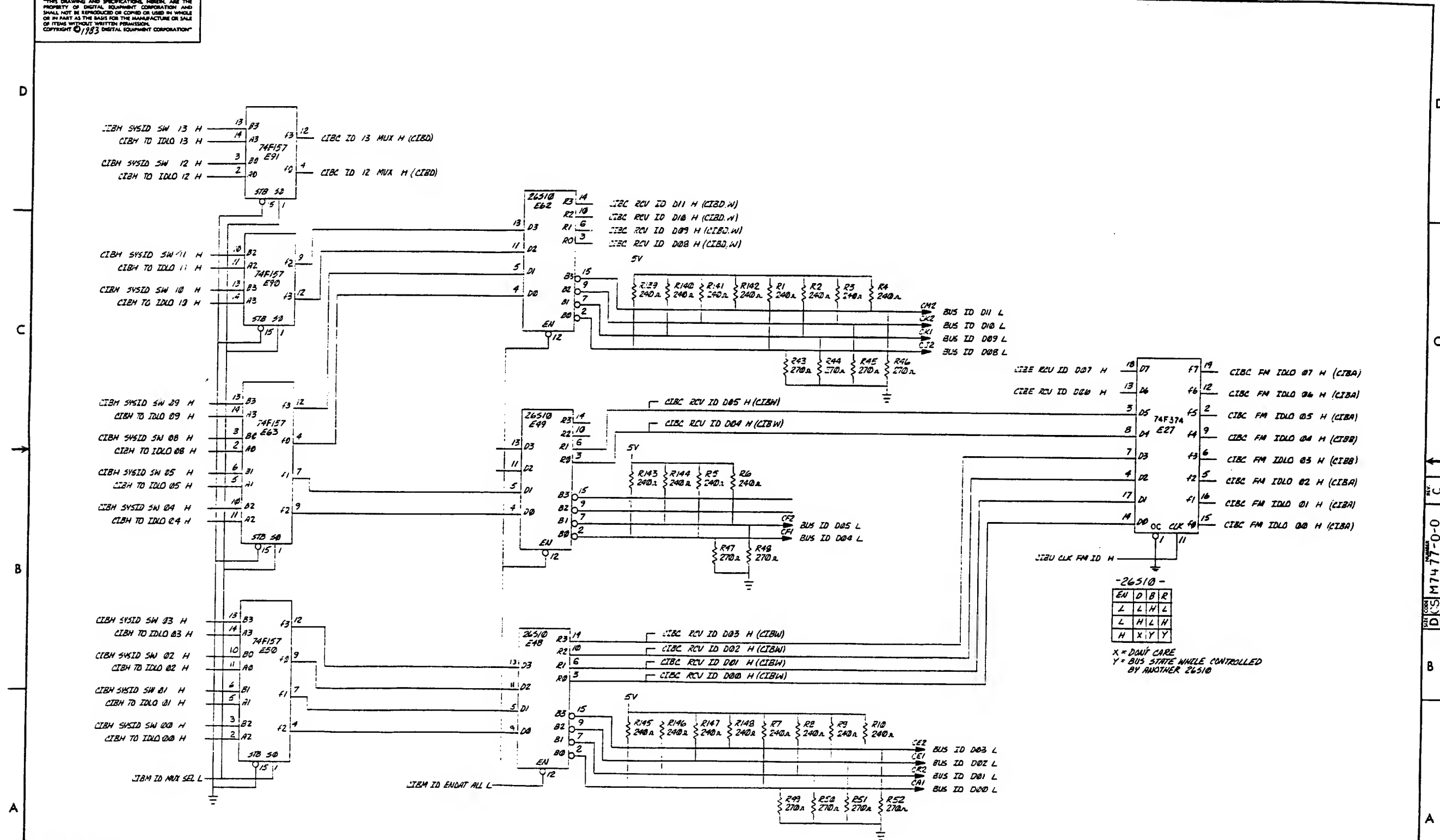
|       |                               |       |           |        |      |
|-------|-------------------------------|-------|-----------|--------|------|
| TITLE | CONSOLE INTERFACE BOARD (CIB) | SIZE  | CODE      | NUMBER | REV. |
| SCALE | SHEET 2 OF 22                 | DIST. | M7477-0-0 | C      |      |

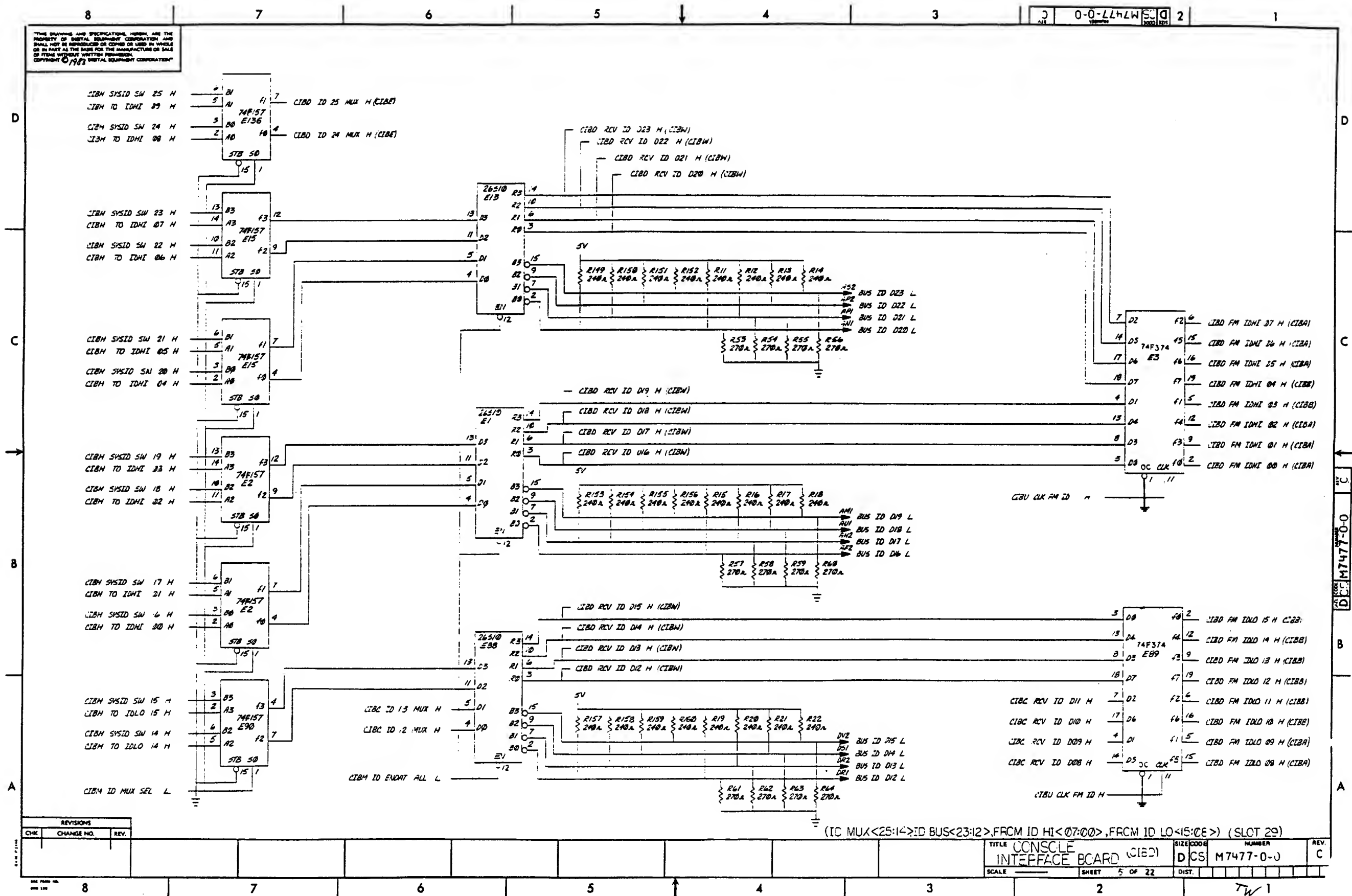
DATE PLOTTED

M7477-0-0

A



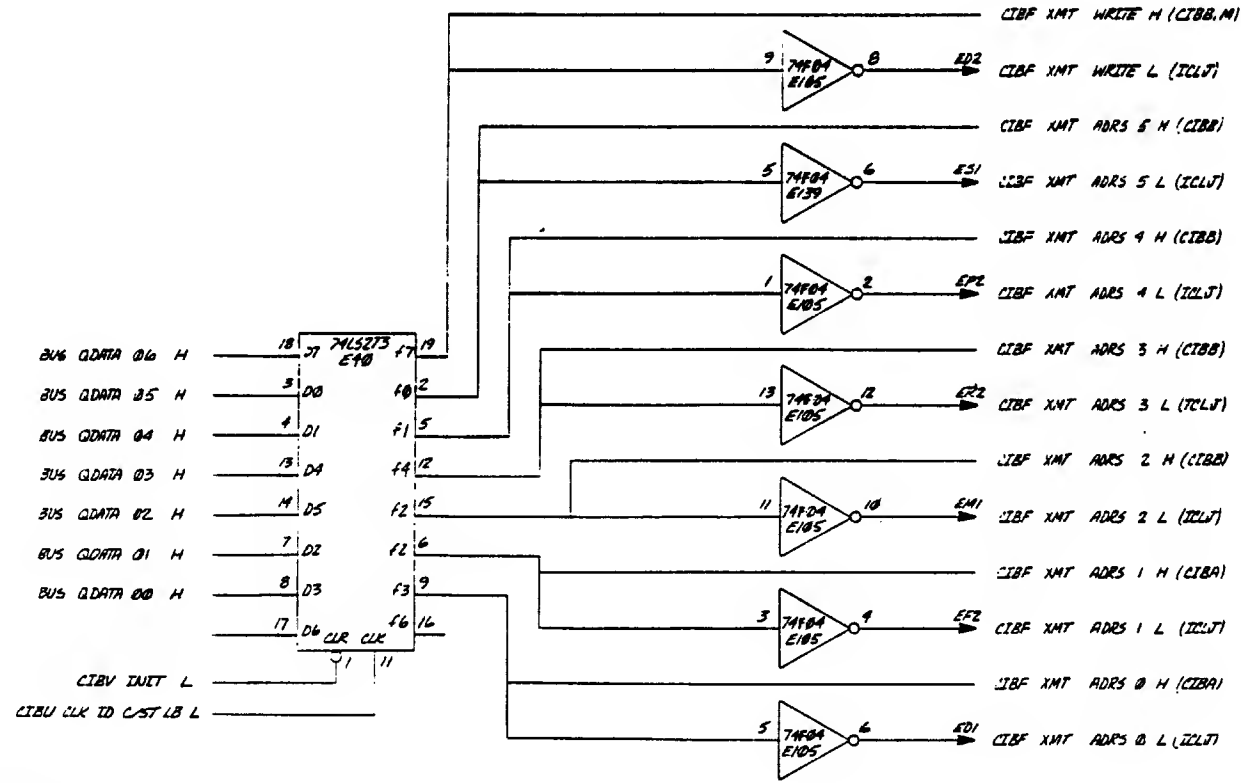
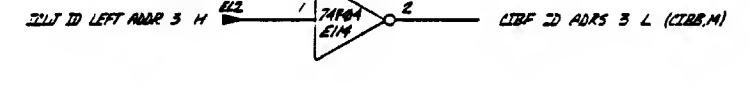
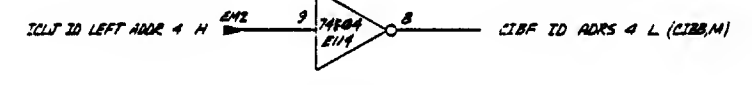
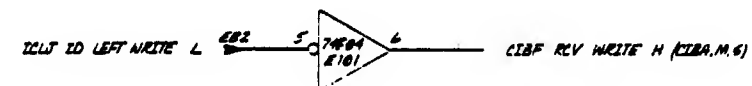
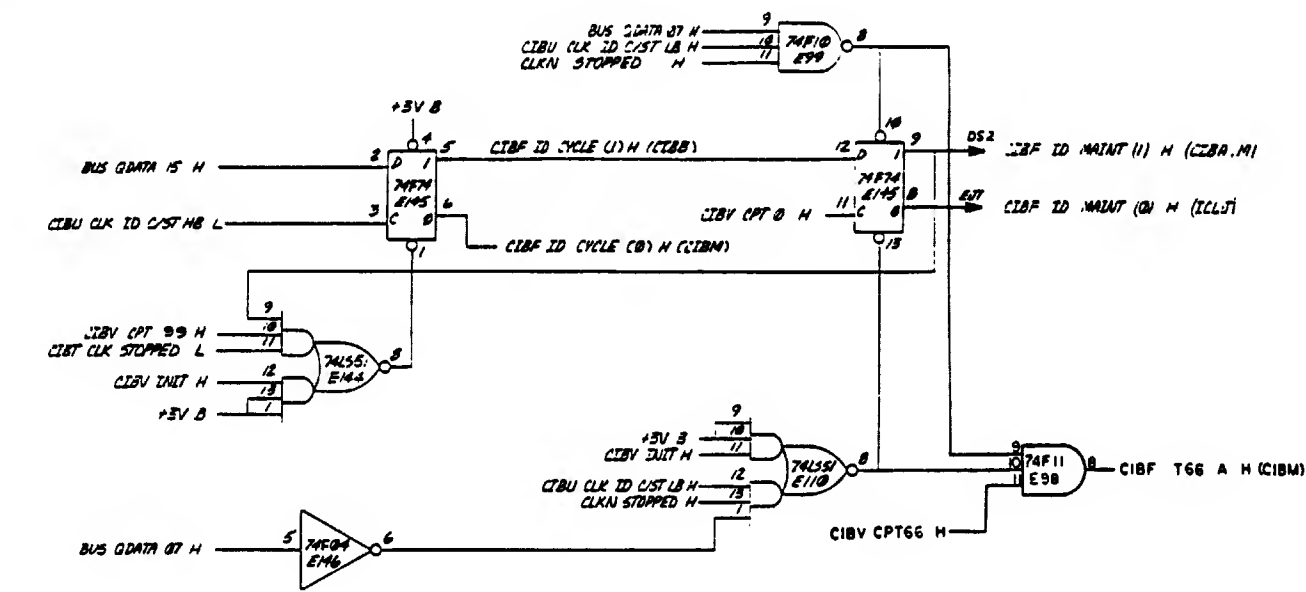








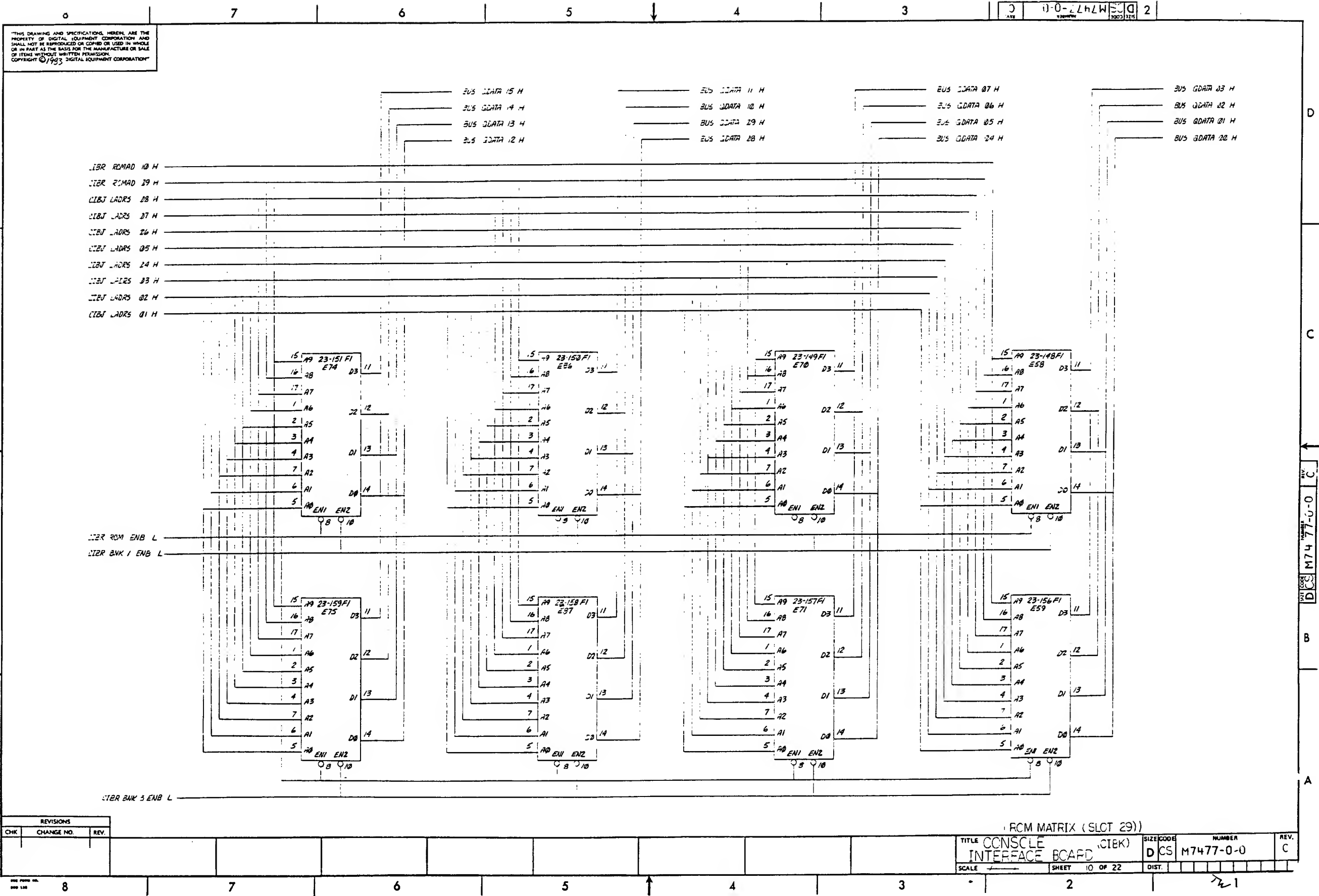
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1983 DIGITAL EQUIPMENT CORPORATION



| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |
|           |            |      |
|           |            |      |
|           |            |      |
|           |            |      |
|           |            |      |
|           |            |      |
|           |            |      |
|           |            |      |





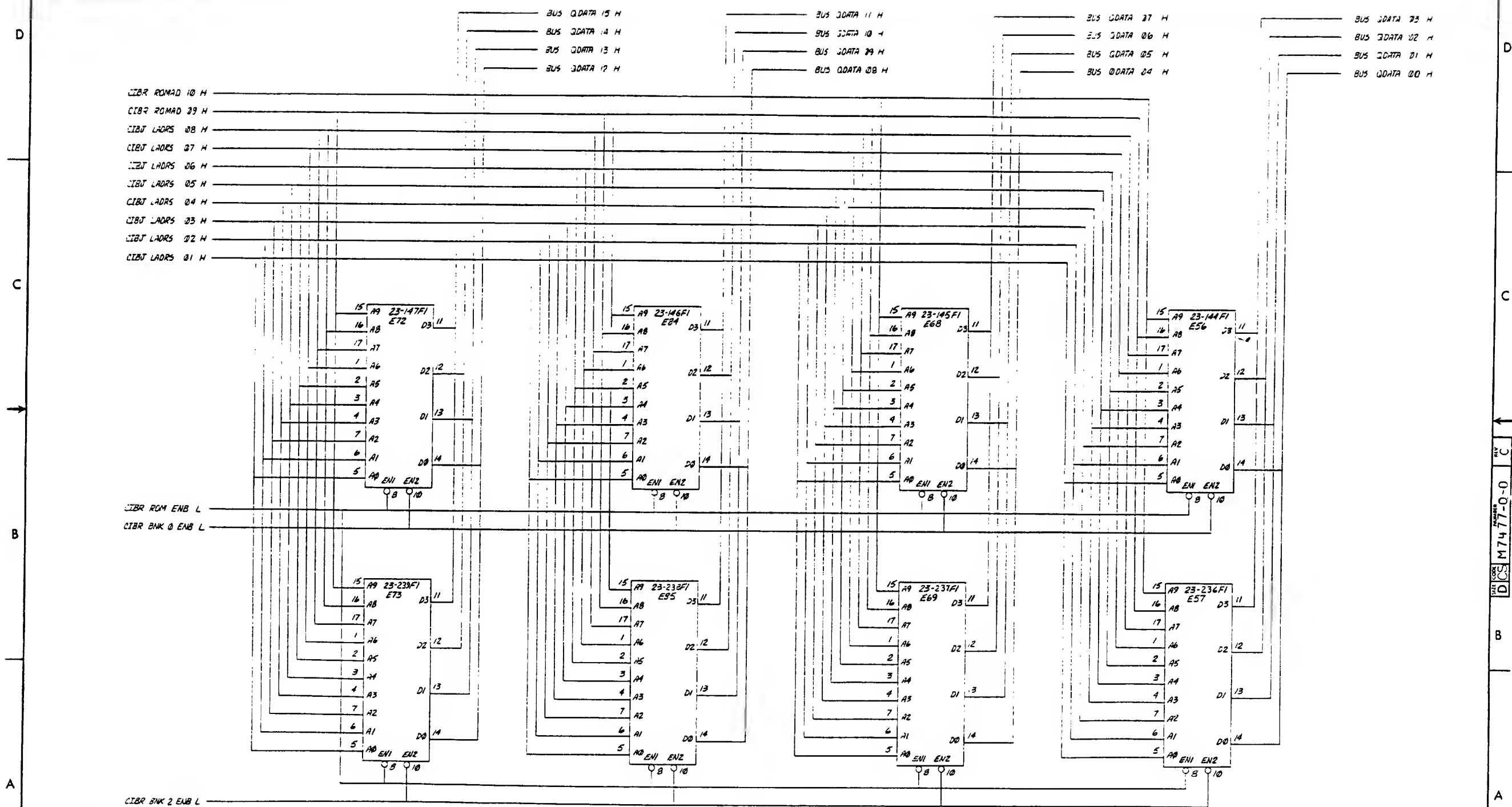


"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION"

| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |
|           |            |      |

|                        |       |                      |           |        |      |
|------------------------|-------|----------------------|-----------|--------|------|
| TITLE                  |       | RCM MATRIX (SLOT 29) | SIZE CODE | NUMBER | REV. |
| INTERFACE BOARD (CIBK) |       | D CS                 | M7477-0-0 | C      |      |
| SCALE                  | SHEET | 10 OF 22             | DIST.     |        |      |

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1975 DIGITAL EQUIPMENT CORPORATION



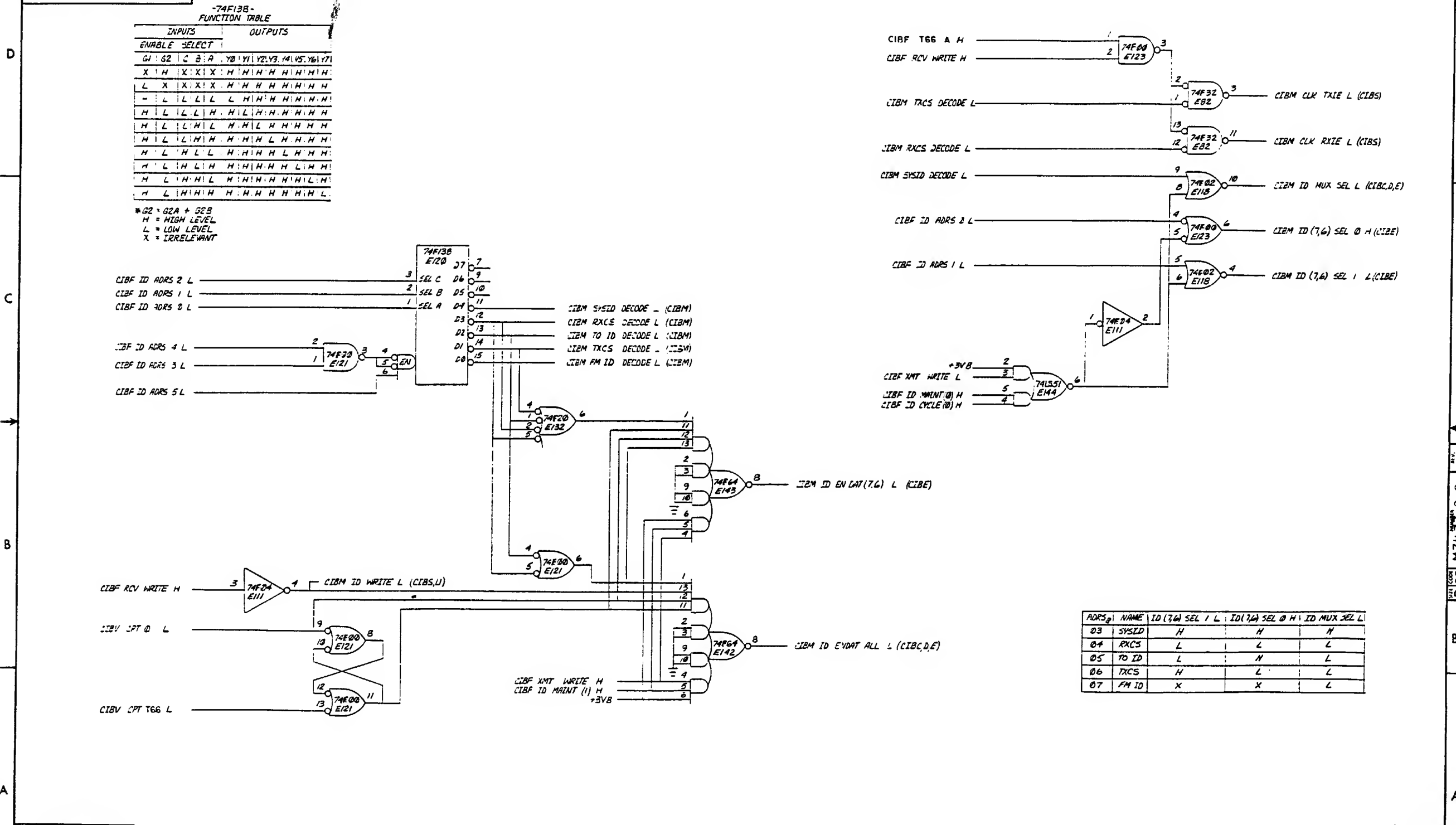
| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |
|           |            |      |

|                                |  |           |           |       |
|--------------------------------|--|-----------|-----------|-------|
| TITLE                          |  | SIZE CODE | NUMBER    | REV.  |
| CONSOLE INTERFACE BOARD (CIBU) |  | D CS      | M7477-0-0 | C     |
| SCALE                          |  | SHEET     | 11 OF 22  | DIST. |

74F138  
FUNCTION TABLE

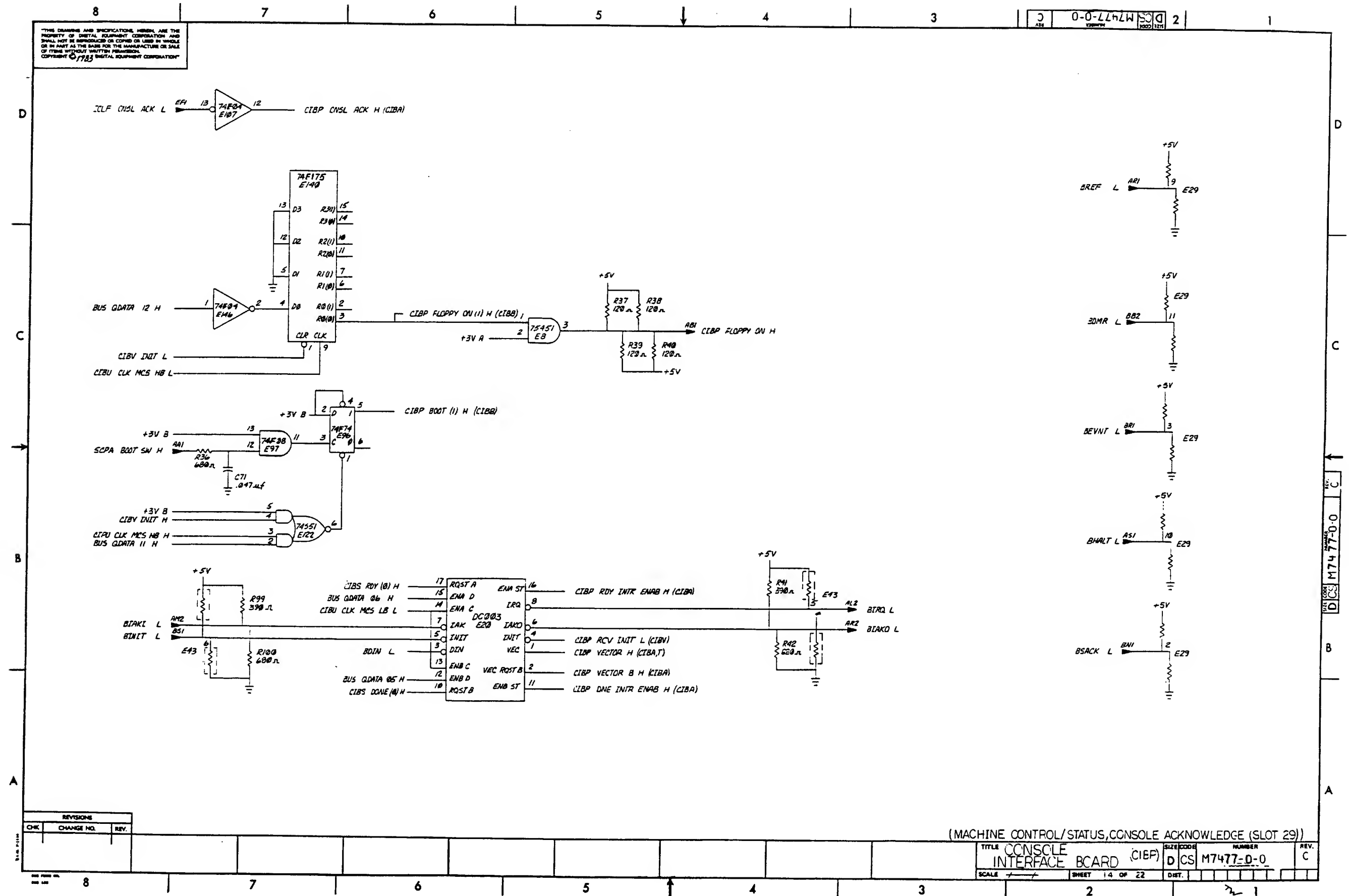
| INPUTS |        | OUTPUTS |   |   |    |    |    |    |    |
|--------|--------|---------|---|---|----|----|----|----|----|
| ENABLE | SELECT |         |   |   |    |    |    |    |    |
| G1     | G2     | C       | B | A | Y0 | Y1 | Y2 | Y3 | Y4 |
| X      | H      | X       | X | X | H  | H  | H  | H  | H  |
| L      | X      | X       | X | X | H  | H  | H  | H  | H  |
| L      | L      | L       | L | L | H  | H  | H  | H  | H  |
| H      | L      | L       | L | H | H  | L  | H  | H  | H  |
| H      | L      | L       | L | L | H  | L  | H  | H  | H  |
| H      | L      | L       | L | H | H  | H  | L  | H  | H  |
| H      | L      | L       | L | L | H  | H  | H  | L  | H  |
| H      | L      | L       | L | H | H  | H  | H  | L  | H  |
| H      | L      | L       | L | L | H  | H  | H  | H  | L  |

\*G2 = G2A + G2B  
H = HIGH LEVEL  
L = LOW LEVEL  
X = IRRELEVANT



| ADDR <sub>8</sub> | NAME  | ID (7,6) SEL 1 L | ID (7,6) SEL 0 H | ID MUX SEL L |
|-------------------|-------|------------------|------------------|--------------|
| 03                | SYSID | H                | H                | H            |
| 04                | RXC5  | L                | L                | L            |
| 05                | TO ID | L                | H                | L            |
| 06                | TXCS  | H                | L                | L            |
| 07                | FM ID | X                | X                | L            |



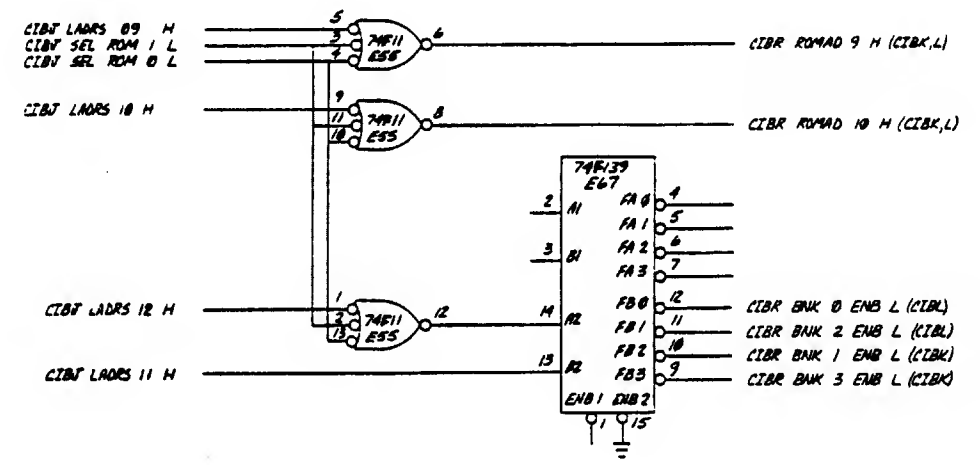
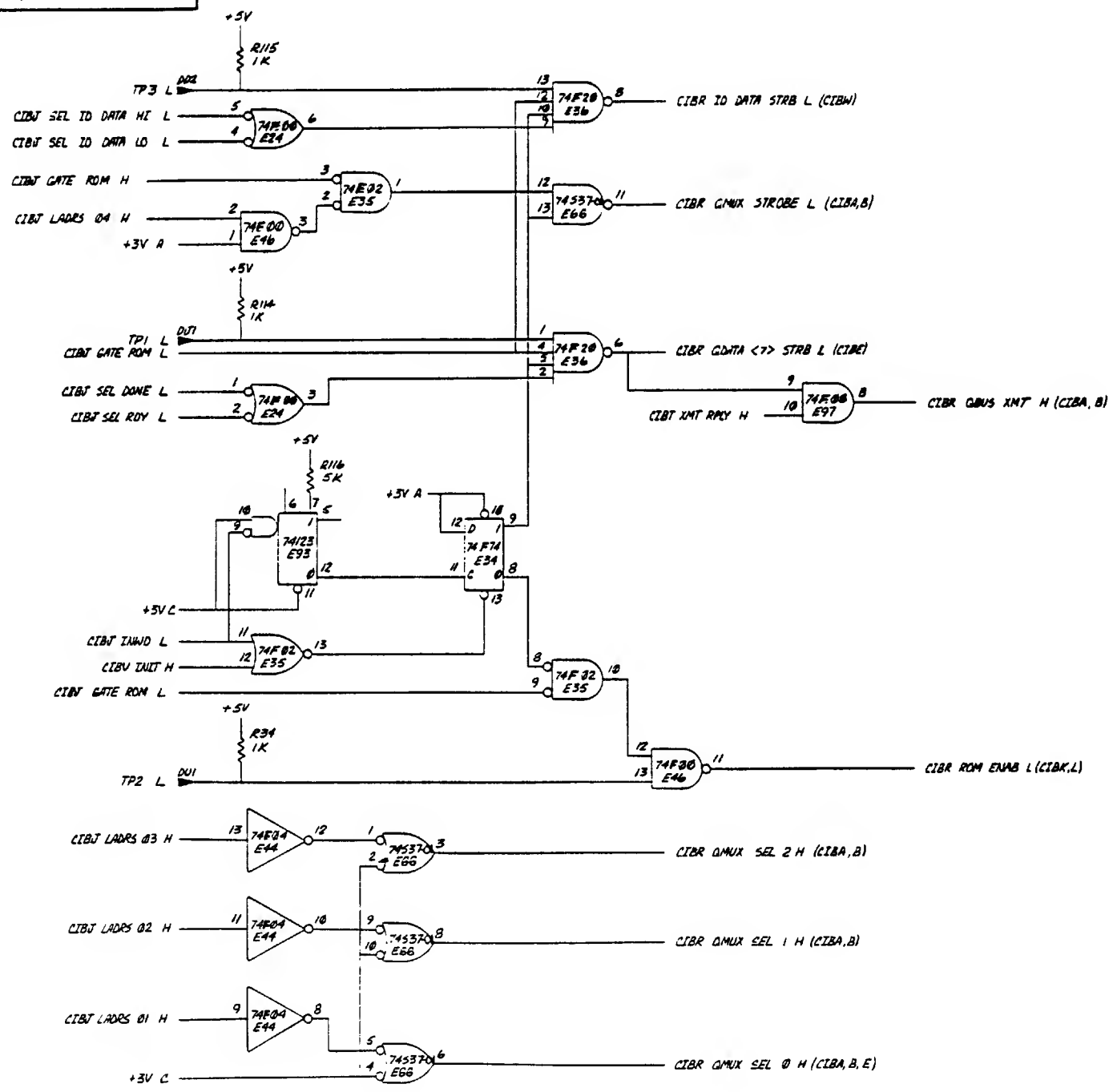




THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1974 DIGITAL EQUIPMENT CORPORATION

8 7 6 5 4 3 2 1

D  
C  
B  
A



REV. C  
M7477-0-0

B  
A

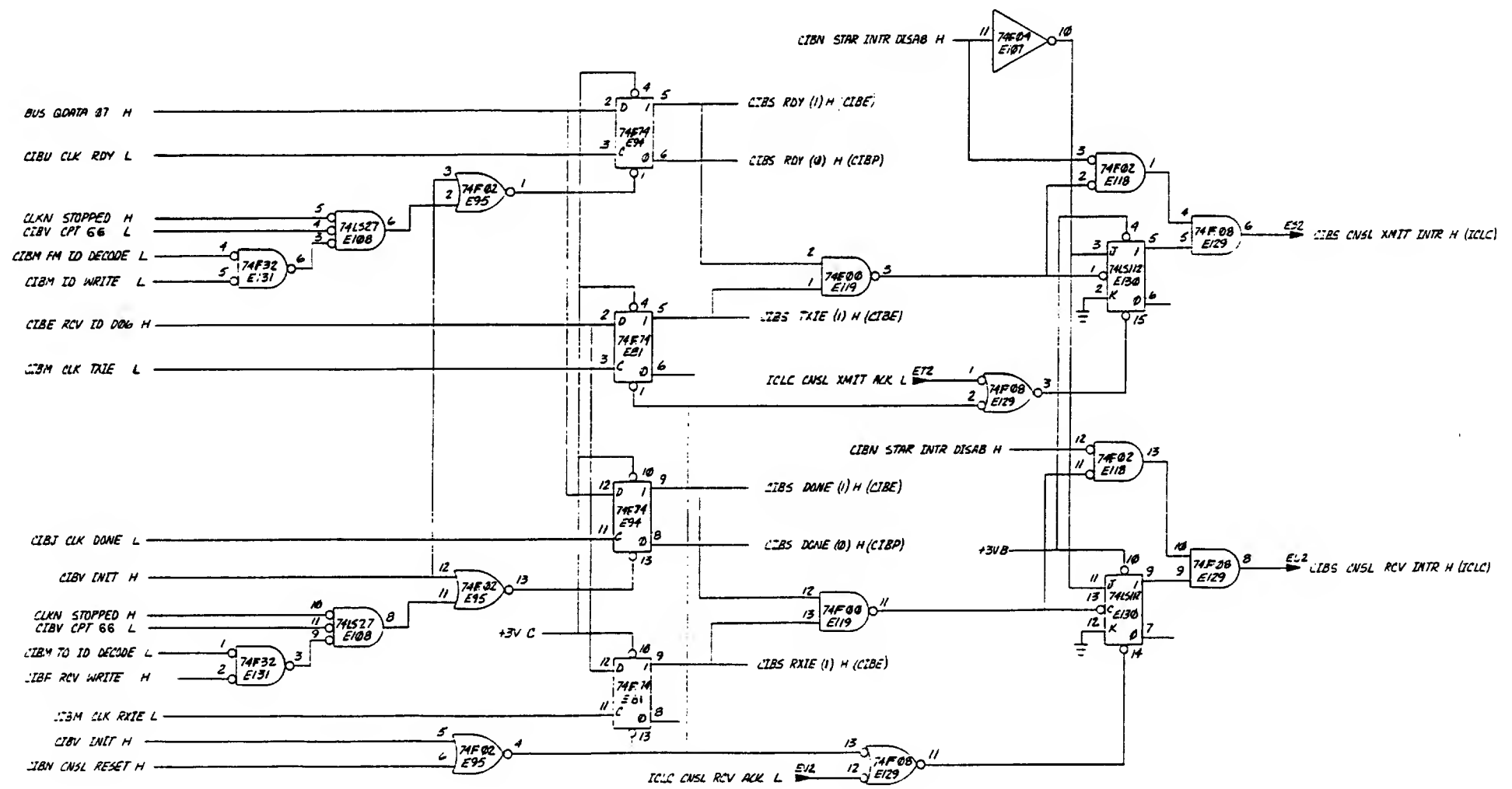
| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |
|           |            |      |

QMUX SELECTS ROM BANK DECODE, ENABLE ID DATA, QMUX STROBES QBUS XMT (SLOT 29))

|  |                   |              |                     |           |
|--|-------------------|--------------|---------------------|-----------|
| TITLE<br>CONSOLE<br>INTERFACE BOARD (CIBR) |                   | SIZE<br>D CS | NUMBER<br>M7477-0-0 | REV.<br>C |
| SCALE                                      | SHEET<br>15 OF 22 | DIST.        |                     |           |

8 7 6 5 4 3 2 1

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION

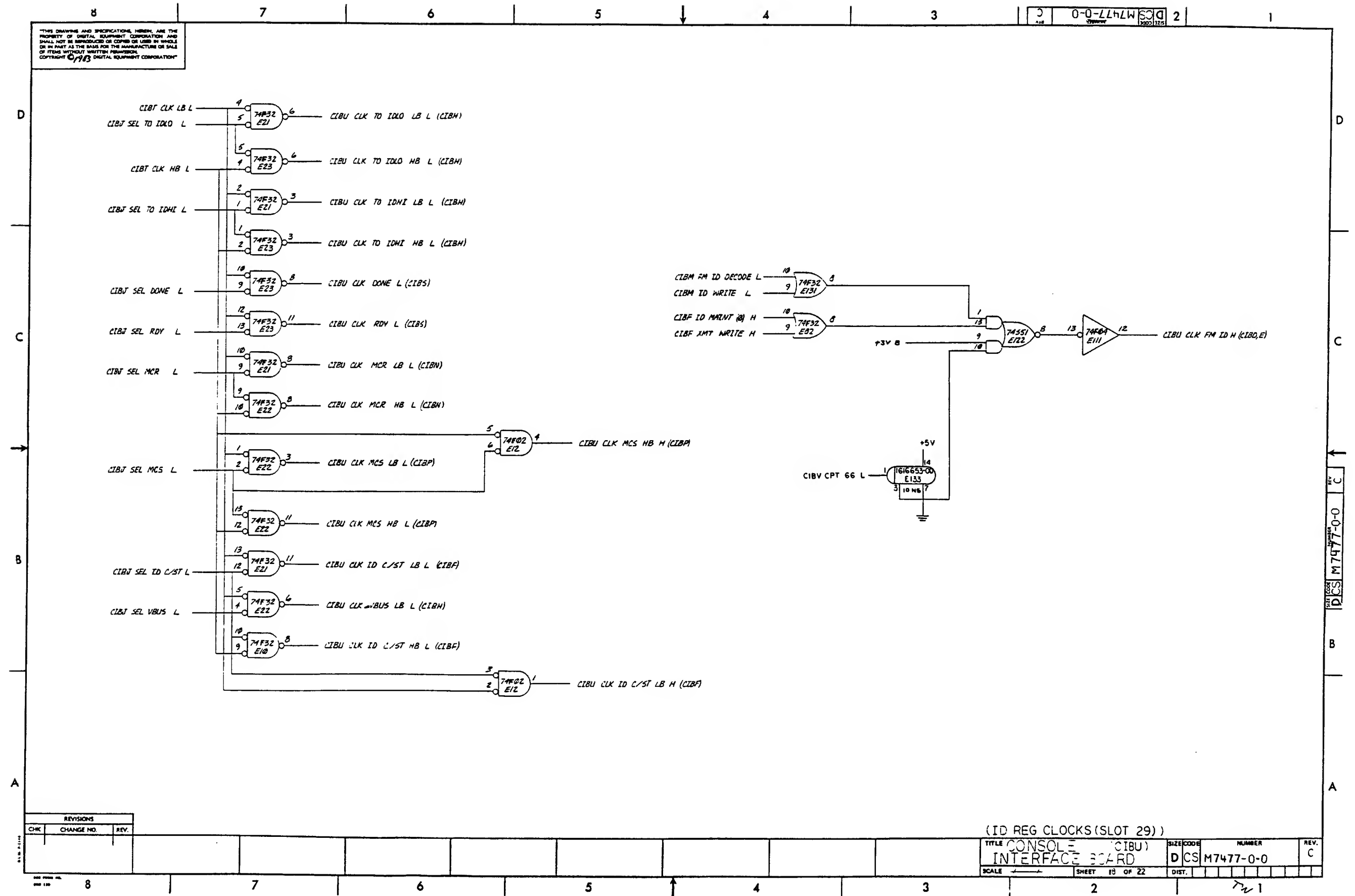


| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |

(READY, DONE, TRANSMIT AND RECEIVE INTERRUPT ENABLES (SLOT 29))

|       |                                   |           |          |        |           |      |   |
|-------|-----------------------------------|-----------|----------|--------|-----------|------|---|
| TITLE | CONSOLE (CIBS)<br>INTERFACE BOARD | SIZE/CODE | D CS     | NUMBER | M7477-0-0 | REV. | C |
| SCALE |                                   | SHEET     | 10 OF 22 | DIST.  |           |      |   |





8

7

6

5

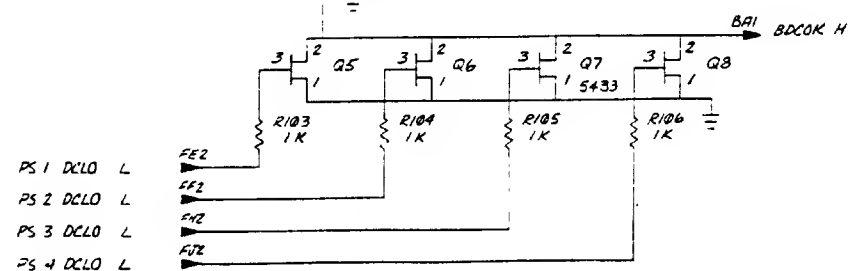
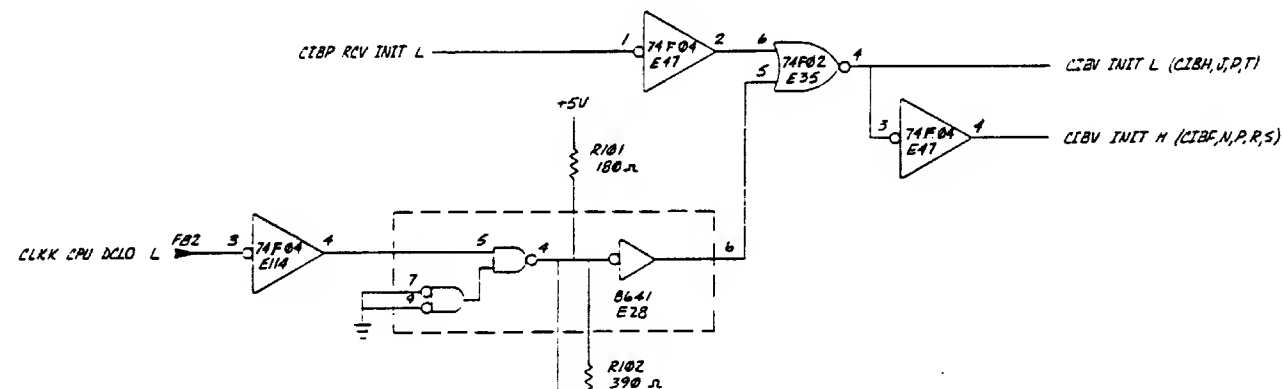
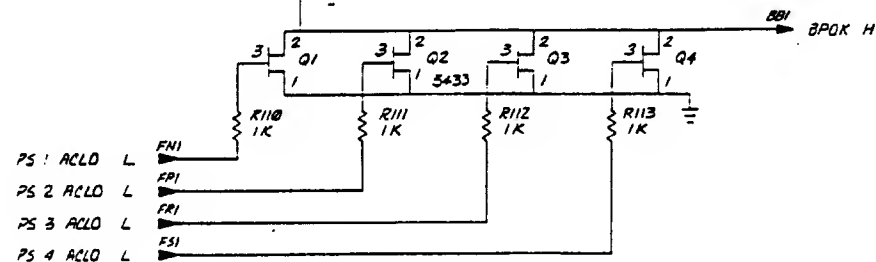
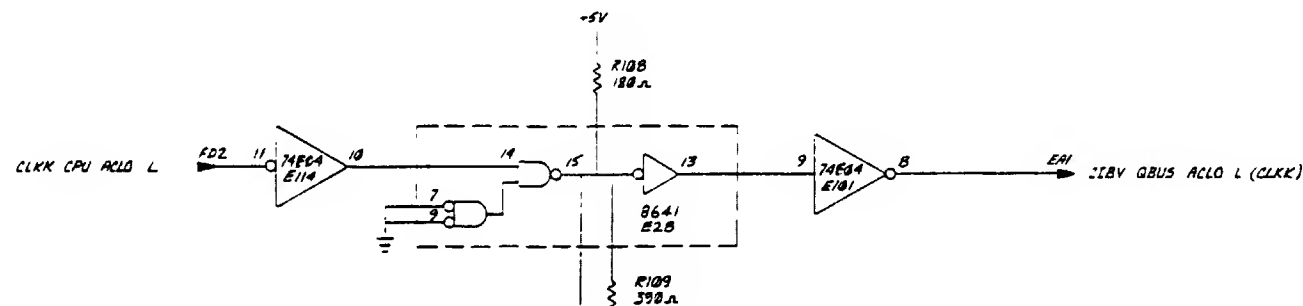
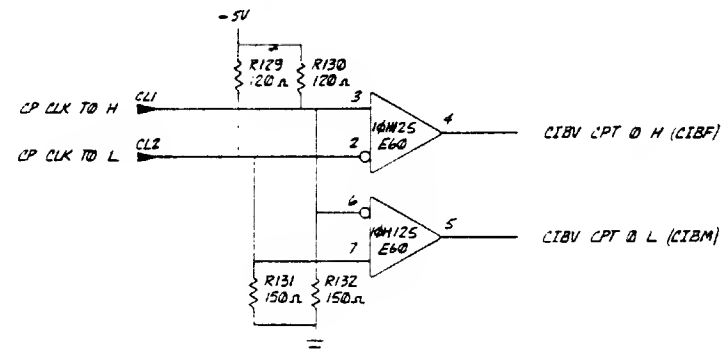
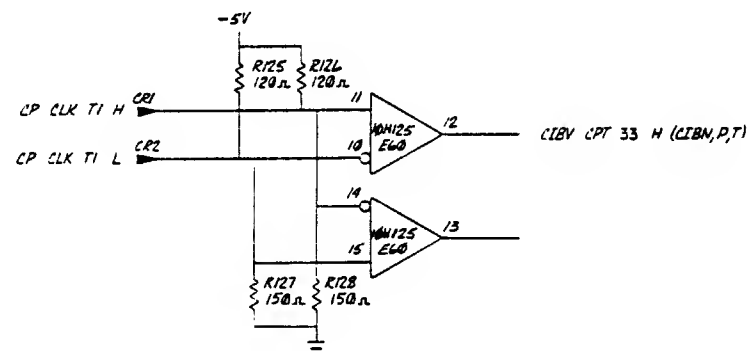
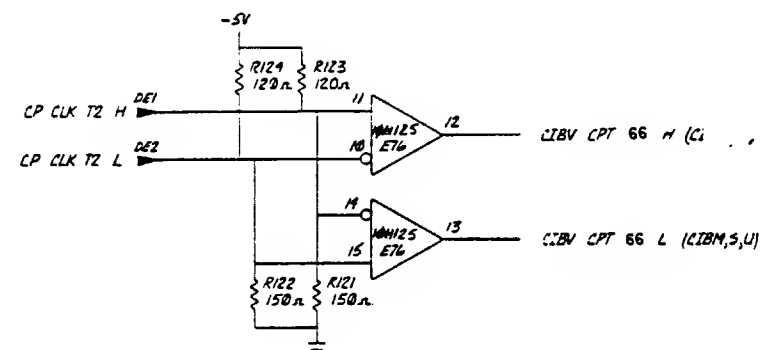
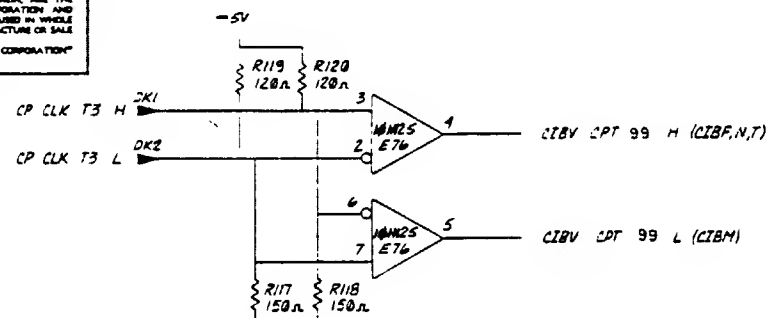
4

3

2

1

THIS DIAGRAM AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITTME WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1985 DIGITAL EQUIPMENT CORPORATION



(ECL CLOCK RECEIVERS, DCLO AND ACLO (SLOT 29))

TITLE CONSOLE (CIBV)  
INTERFACE BOARD

SIZE CODE NUMBER  
DCS M7477-0-0

SCALE SHEET 19 OF 22 DIST

REV. C

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1973 DIGITAL EQUIPMENT CORPORATION

D

C

B

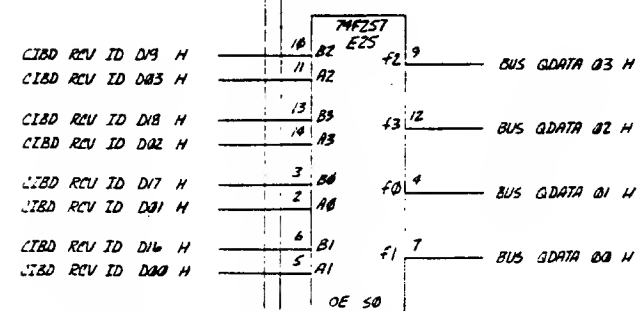
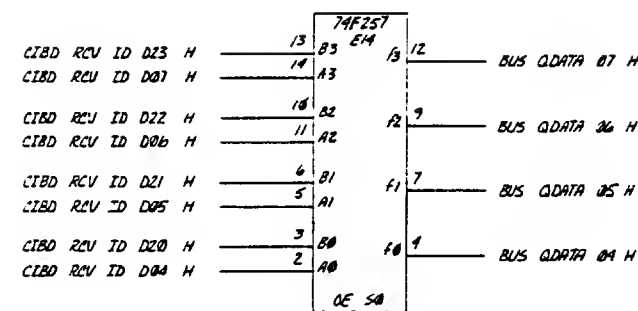
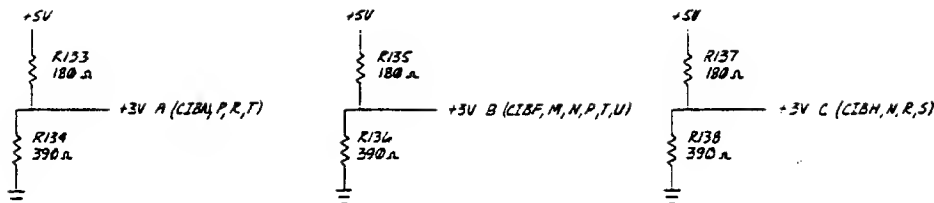
A

| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |

DATE 8/1/73

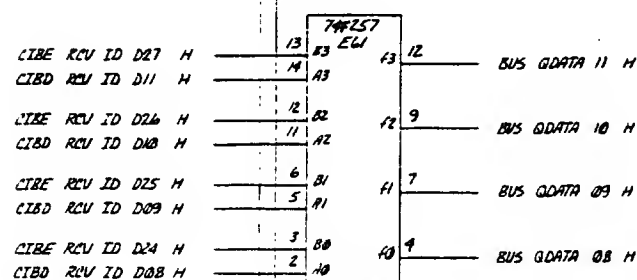
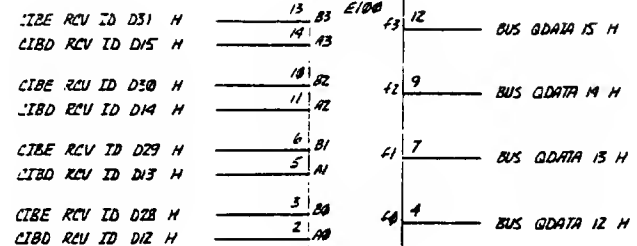
8 7 6 5 4 3 2 1

0 0-0-7747W SC D 2



CIBR ID DATA STB L

CIBT SEL ID DATA LD L



NOTE SEE CIBT

- DC004 -

| TRUTH TABLE |     |        |         |         |       |       |
|-------------|-----|--------|---------|---------|-------|-------|
| INPUTS      |     |        | OUTPUTS |         |       |       |
| BSYNC       | ENB | BDAL 2 | BDAL 1  | SEL 6 1 | SEL 4 | SEL 2 |
| H           | X   | X      | X       | H       | H     | H     |
| L           | L*  | X      | X       | H       | H     | H     |
| L           | H*  | L*     | L*      | L       | H     | H     |
| L           | H*  | L*     | H*      | H       | L     | H     |
| L           | H*  | H*     | L*      | H       | H     | L     |
| L           | H*  | H*     | H*      | H       | H     | L     |

| INPUTS |     |       | OUTPUTS |       |       |       |       |      |
|--------|-----|-------|---------|-------|-------|-------|-------|------|
| BSYNC  | ENB | BDOUT | BDINB   | BDALB | OUTLB | OUTHB | BRPLY | RXCX |
| H      | X   | X     | X       | X     | H     | H     | H     | L    |
| L      | X   | H     | X       | X     | H     | H     | H     | L    |
| L      | L*  | L     | H       | X     | L     | L     | H     | L    |
| L      | L*  | L     | L       | H*    | L     | H     | H     | L    |
| L      | L*  | L     | L       | L*    | H     | L     | H     | L    |
| L      | H*  | L     | H       | X     | L     | L     | L     | H    |
| L      | H*  | L     | L       | H*    | L     | H     | L     | H    |
| L      | H*  | L     | L       | L*    | H     | L     | L     | H    |

| INPUTS |     |      | OUTPUTS |       | INPUT |        |       | OUTPUTS |  |
|--------|-----|------|---------|-------|-------|--------|-------|---------|--|
| BSYNC  | ENB | BDIN | INWD    | BRPLY | RXCX  | VECTOR | BRPLY | RXCX    |  |
| H      | X   | X    | H       | H     | L     | H      | L     | H       |  |
| L      | X   | H    | H       | H     | L     | L      | H     | L       |  |
| L      | L*  | L    | L       | H     | L     |        |       |         |  |
| L      | H*  | L    | L       | L     | H     |        |       |         |  |

- NOTES:
- 1.) H'S AND L'S MARKED WITH \* INDICATES THE STATE OF THE INPUT LINE AT THE FALLING EDGE OF BSYNC, ASSUMING THE PROPER SET-UP AND HOLD TIMES, OUTSIDE OF THIS INTERVAL, THE INPUT LEVEL ON THESE LINES IS X.
  - 2.) "X" IMPLIES A DON'T CARE CONDITION.
  - 3.) NOTE THAT "BRPLY" IS PRODUCED BY THREE MEANS. THE ACTUAL OUTPUT IS L IF ANY OF THE THREE TRUTH TABLES INDICATE L. THE OUTPUTS ARE H ONLY IF ALL THREE TRUTH TABLES INDICATE H. RXCX IS THE LOGICAL INVERSION OF BRPLY.

(ID DATA MUX (SLOT 29))

| TITLE           |  | SIZE CODE      | NUMBER    | REV. |
|-----------------|--|----------------|-----------|------|
| CONSOLE (CIBW)  |  | D CS           | M7477-0-0 | C    |
| INTERFACE BOARD |  |                |           |      |
| SCALE           |  | SHEET 20 OF 22 | DIST.     |      |

8

7

6

5

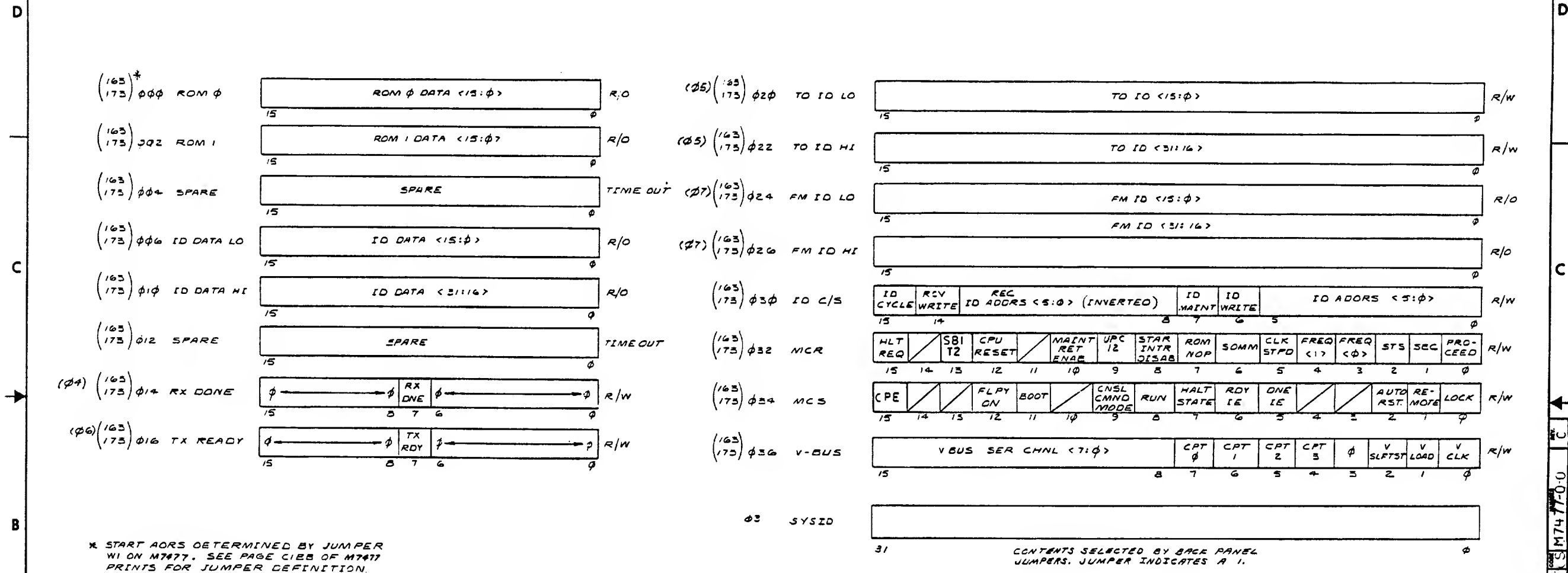
4

3

2

1

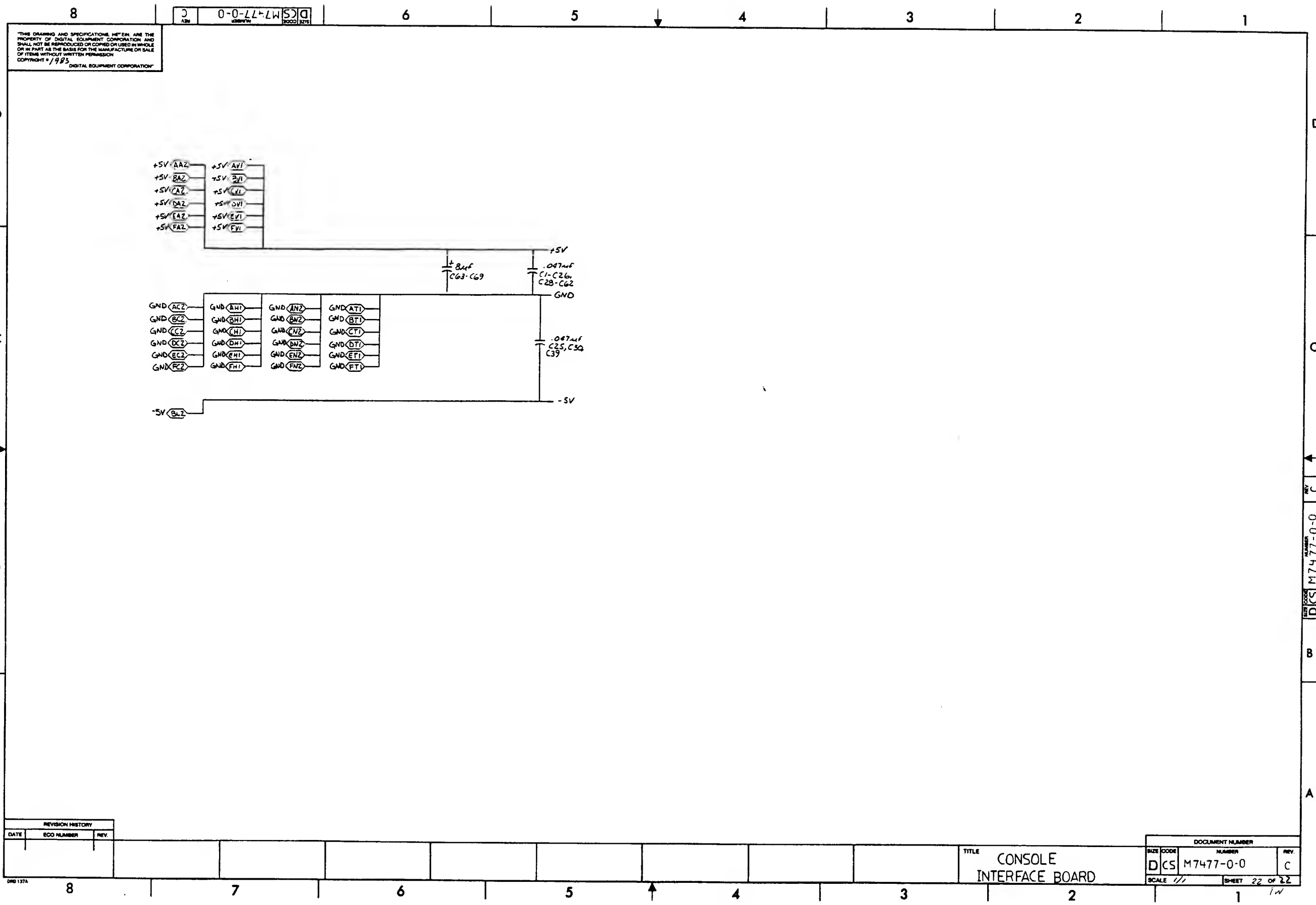
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION



| REV. | CHG. | NO. |
|------|------|-----|
| 1    | 1    | 1   |

(CIB REGISTER DEFINITION (SLOT 29))

|                   |          |               |                                |
|-------------------|----------|---------------|--------------------------------|
| CHK'D             | 8-15-77  | FIRST USED ON | 8-15-77                        |
| ENG'D             | 8-15-77  | TITLE         | CONSOLE (CIBX) INTERFACE BOARD |
| PROJ. ENG'D       | 8-15-77  | NUMBER        | M7477-0-0                      |
| PROD. TESTED      | 8-15-77  | REV.          | C                              |
| NEXT HIGHER ASSY. |          | SIZE          | D                              |
| SCALE             |          | CODE          | CS                             |
| SHEET             | 21 OF 22 | DIST.         |                                |



THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION  
COPYRIGHT © 1985 DIGITAL EQUIPMENT CORPORATION

| REVISION HISTORY |            |      |
|------------------|------------|------|
| DATE             | ECO NUMBER | REV. |
|                  |            |      |

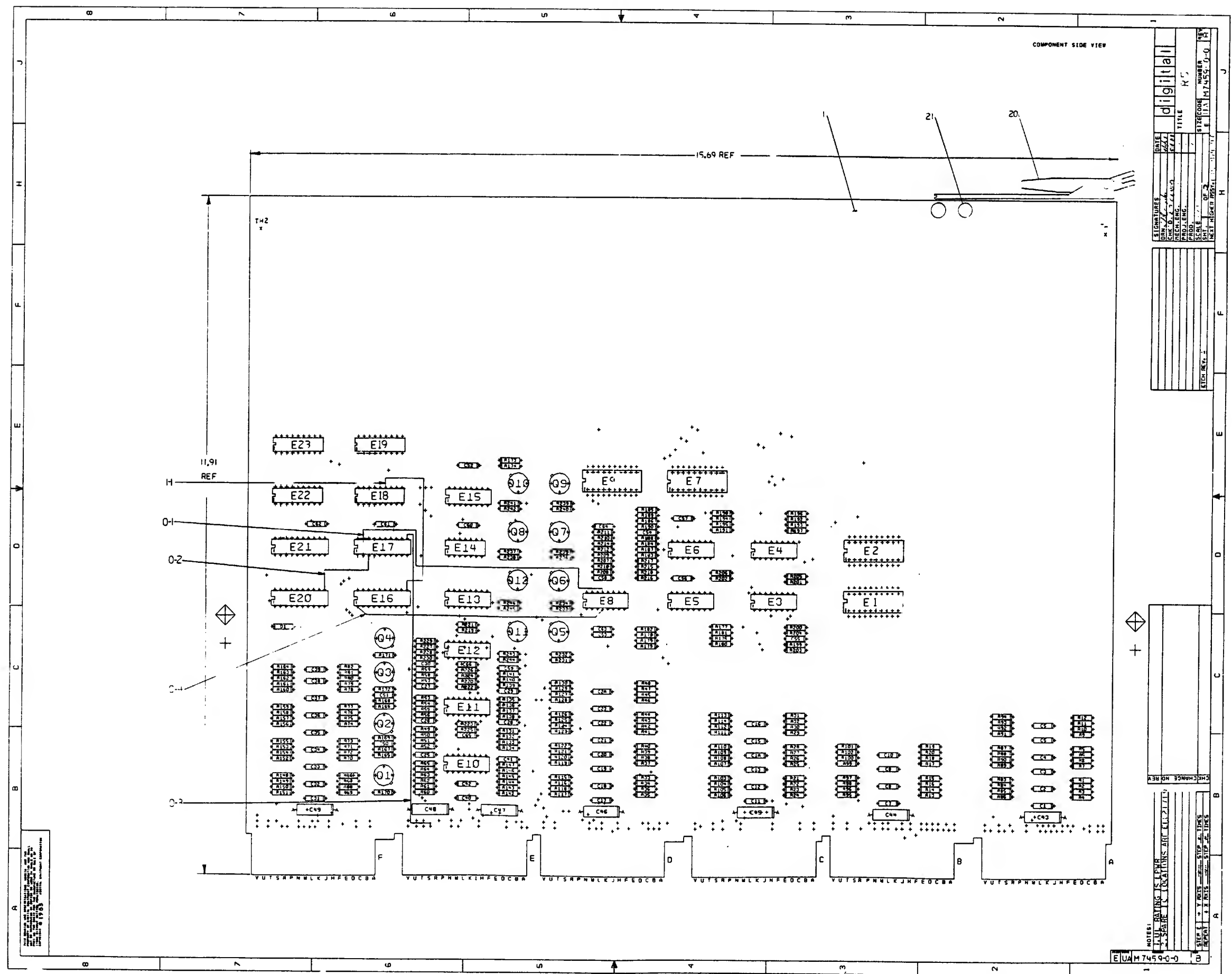
|          |  |  |  |  |  |  |                                     |  |                |            |                     |           |
|----------|--|--|--|--|--|--|-------------------------------------|--|----------------|------------|---------------------|-----------|
|          |  |  |  |  |  |  | TITLE<br>CONSOLE<br>INTERFACE BOARD |  | SIZE<br>D      | CODE<br>CS | NUMBER<br>M7477-0-0 | REV.<br>C |
| DWD 137A |  |  |  |  |  |  | SCALE 1/1                           |  | SHEET 22 OF 22 |            |                     |           |

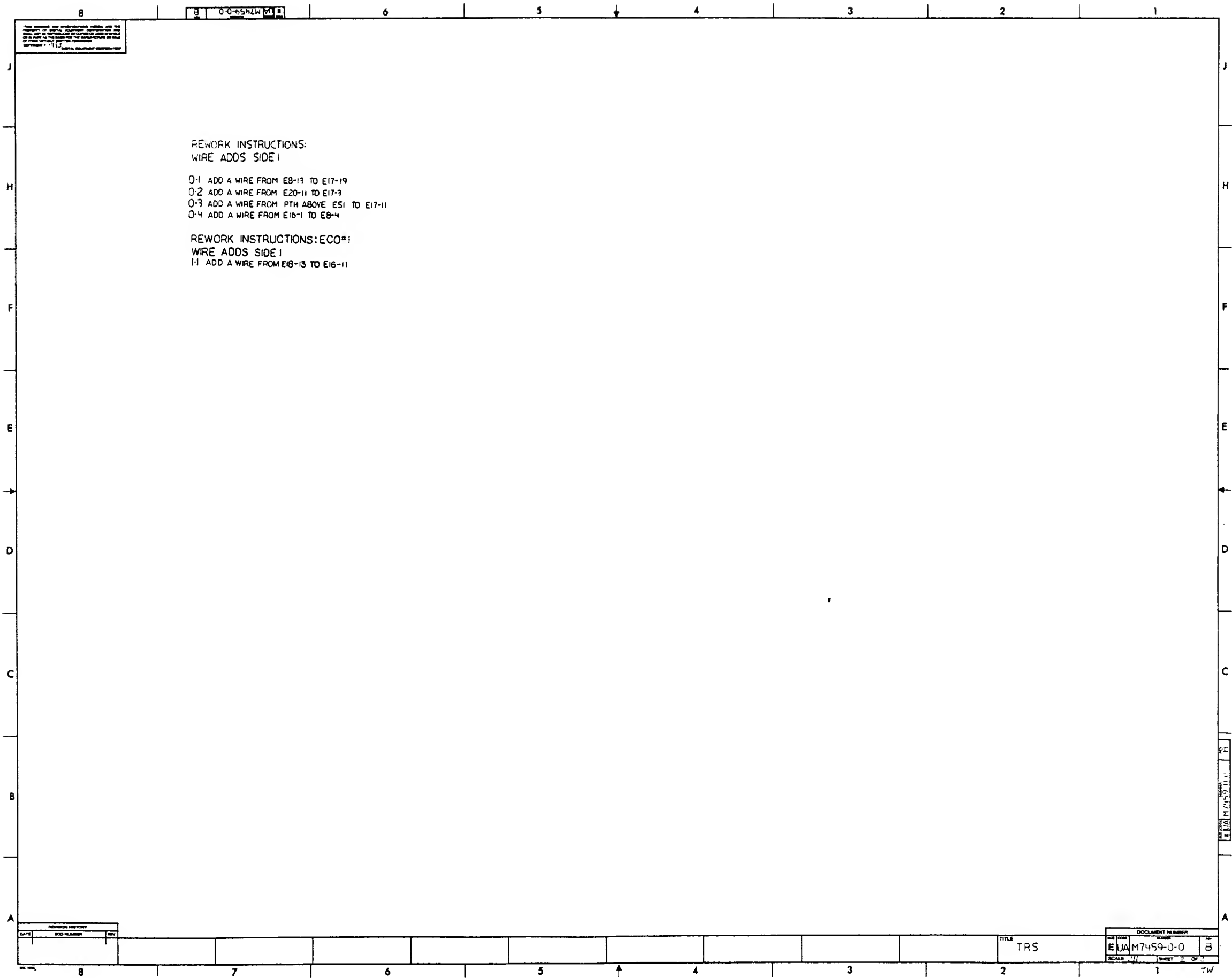


[illegible]









REWORK INSTRUCTIONS:  
WIRE ADDS SIDE I

- 0-1 ADD A WIRE FROM E8-13 TO E17-19
- 0-2 ADD A WIRE FROM E20-11 TO E17-3
- 0-3 ADD A WIRE FROM PTH ABOVE E51 TO E17-11
- 0-4 ADD A WIRE FROM E16-1 TO E8-4

REWORK INSTRUCTIONS: ECO#1  
WIRE ADDS SIDE I  
1-1 ADD A WIRE FROM E18-13 TO E16-11

| REVISION HISTORY |            |     |
|------------------|------------|-----|
| DATE             | ECO NUMBER | REV |
|                  |            |     |

| DOCUMENT NUMBER |           |    |
|-----------------|-----------|----|
| EJA             | M7459-0-0 | B  |
| SCALE           | SHEET     | OF |

AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A1 OF A2

| LINE | ITEM | DOCUMENT NUMBER  | PART NUMBER | DESCRIPTION                      | QTY | PER VARIATION | REFERENCE DESIGNATOR   |
|------|------|------------------|-------------|----------------------------------|-----|---------------|--|
|      |      |                  |             |                                  | 00  |               |  |
| 1    | 1    | D-MD-5016067-0-0 | 5016067-01  | TERMINATOR SILO (TRS)            | 1   |               |  |
| 2    | 2    |                  | 1012784-00  | .047 MFD 50V +80-20% CER         | 59  |               | C1-C42,C50-C66   |
| 3    | 3    |                  | 1012084-01  | 8 MFO 25V +75-10% AL EL          | 7   |               | C43-C49  |
| 4    | 4    |                  | 1103041-00  | PIV= 8 IO= 50 MA                 | 1   |               | Q1   |
| 5    | 5    |                  | 1311422-00  | 178.0 .25 W 1.0 * RN55D-F10      | 84  |               | R83-R166   |
| 6    | 6    |                  | 1300365-00  | 1.0 K .25 W 5.0 * CF             | 4   |               | R169-R172  |
| 7    | 7    |                  | 1300295-00  | 330.0 .25 W 5.0 * CF             | 1   |               | R173   |
| 8    | 8    |                  | 1301424-00  | 680.0 .25 W 5.0 * CF             | 1   |               | R174   |
| 9    | 9    |                  | 1302957-00  | 121.0 .25 W 1.0 * RN55D-F10      | 106 |               | R1-R82,R168,R167,R175-R178,<br>R183-R186,R216,R191-R194,<br>R199-R202,R207,R208,R211,R212,<br>R215<br>R179-R182,R187-R190,R195-R198,<br>R203-R206<br>R209,R210,R213,R214,R217,R218<br>Q1-Q4<br>E15<br>E16,E17,E20,E21<br>E18,E19,E22,E23<br>E3-E6<br>E13<br>E14<br>E11,E12 |
| 10   | 10   |                  | 1301972-00  | 270.0 .25 W 5.0 * CF             | 16  | CONT          |  |
| 11   | 11   |                  | 1300250-00  | 150.0 .25 W 5.0 * CF             | 6   | CONT          |  |
| 12   | 12   |                  | 1511686-00  | OEC5433 FET N 350MW 10 25 1A     | 4   | CONT          |  |
| 13   | 13   |                  | 1921322-01  | 74F161 BINARY COUNTER,PRES       | 1   | CONT          |  |
| 14   | 14   |                  | 1912731-00  | OEC 8646A TRANSCEIVER,4BIT BUS   | 4   | CONT          |  |
| 15   | 15   |                  | 1912586-00  | OM 85S68N REGISTER,64BIT EOE     | 4   | CONT          |  |
| 16   | 16   |                  | 1913788-00  | 26S10 TRANSCEIVER,BUS,QUA        | 4   | CONT          |  |
| 17   | 17   |                  | 1921318-01  | 74F151 MUX,8-IN                  | 1   | CONT          |  |
| 18   | 18   |                  | 1921311-01  | 74F20 NANO GATE,QUAL,4-IN        | 1   | CONT          |  |
| 19   | 19   |                  | 1921719-01  | 10H105 OR/NOR GATE TRIPLE 2-3-2  | 2   | CONT          |  |
| 20   | 20   |                  | 1216988-02  | HANOLE,MOOULE,HEX TWO EJECTORS   | 1   | CONT          |  |
| 21   | 21   |                  | 9000024-01  | EYELET,ROLLED 0.12100X0.192      | 12  | CONT          |  |
| 22   | 22   |                  | 1510959-00  | 2N 3725 NPN 3.5WC SI 50 60 P     | 8   | CONT          |  |
| 23   | 23   |                  | 1921720-01  | 10H125 TRANSLATOR ECL TO TTL QUA | 1   | CONT          |  |
| 24   | 24   |                  | 1913220-00  | 10216 RECEIVER,TRIPLE LINE       | 1   | CONT          |  |
| 25   | 25   |                  | 1301322-00  | 180.0 .25 W 5.0 * CF             | 14  | CONT          |  |

|                  |            |                      |                         |  |                      |                 |      |             |     |
|------------------|------------|----------------------|-------------------------|--|----------------------|-----------------|------|-------------|-----|
| REVISION HISTORY |            | BASIC PART NO: M7459 |                         | ORN: THOMAS F WALSH  | DATE: 04-AUG-83      | D I G I T A L   |      |             |     |
| ENG              | ECO NUMBER | REV                  | SECTION A OF A          | CHK'O: E.T. GERRY  | DATE: 04-AUG-83      | TITLE           |      | PARTS LIST  |     |
|                  | INITIAL    | A                    | SECTION VARIATION INDEX | OES.ENG: O CIRKA   | DATE: 04-AUG-83      | TRS             |      |             |     |
|                  |            |                      | [A] 00                  | RESP.ENG.: O CIRKA   | DATE: 04-AUG-83      | DOCUMENT NUMBER |      |             |     |
|                  |            |                      | [B]                     | MFG.ENG.: M. J. KRYSAK   | DATE:                | SIZE            | CODE | NUMBER      | REV |
|                  |            |                      | [C]                     | ASSEMBLY NUMBER:   | TOP DOCUMENT NUMBER: | K               | PL   | M7459-0-DBP | A   |
|                  |            |                      | [D]                     | E-UA-M7459-0-0   | 8-00-M7459-0-0       | FILE NAME:      |      | EDIT #      |     |
|                  |            |                      | [E]                     |  |                      | Z3937A.PLS      |      | 8           |     |
|                  |            |                      | [F]                     | "THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1983. DIGITAL EQUIPMENT CORPORATION " |                      |                 |      |             |     |
|                  |            |                      | [G]                     |  |                      |                 |      |             |     |
|                  |            |                      | [H]                     |  |                      |                 |      |             |     |
|                  |            |                      | [I]                     |  |                      |                 |      |             |     |
|                  |            |                      | [J]                     |  |                      |                 |      |             |     |
|                  |            |                      | [K]                     |  |                      |                 |      |             |     |
|                  |            |                      | [L]                     |  |                      |                 |      |             |     |
|                  |            |                      | [M]                     |  |                      |                 |      |             |     |
|                  |            |                      | [N]                     |  |                      |                 |      |             |     |

AUTOMATED BY PRTLST.4Q(50)

PARTS LIST

SHEET A2 OF A2

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

QTY PER VARIATION  
00

REFERENCE DESIGNATOR

26 26

1300247-00

120.0 .25 W 5.0 \* CF 14

CONT R244,R246  
CONT R219,R220,R223,R224,R227,R228,  
CONT R231,R233,R235,R237,R239,R241,  
CONT R243,R245

27 27

9105740-55

WIRE(WRAP) 30AWG KYNAR UL14 A/R

|   |   |   |   |   |   |   |       |                |      |      |                 |     |
|---|---|---|---|---|---|---|-------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   | TRS   |                | K    | PL   | M7459-0-DBP     | A   |

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1983, DIGITAL EQUIPMENT CORPORATION

D

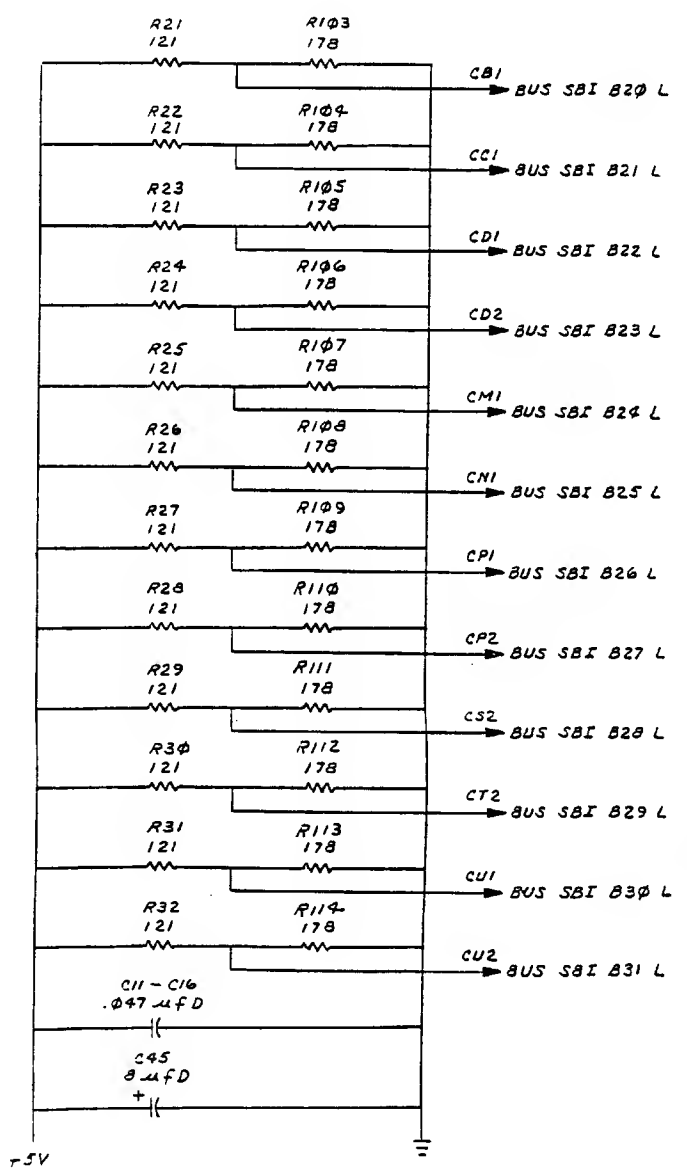
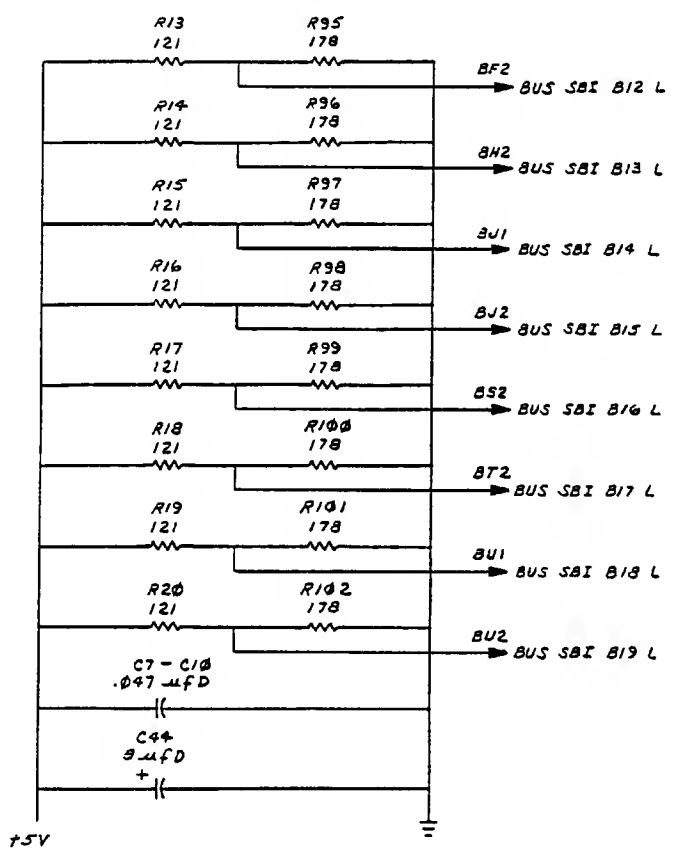
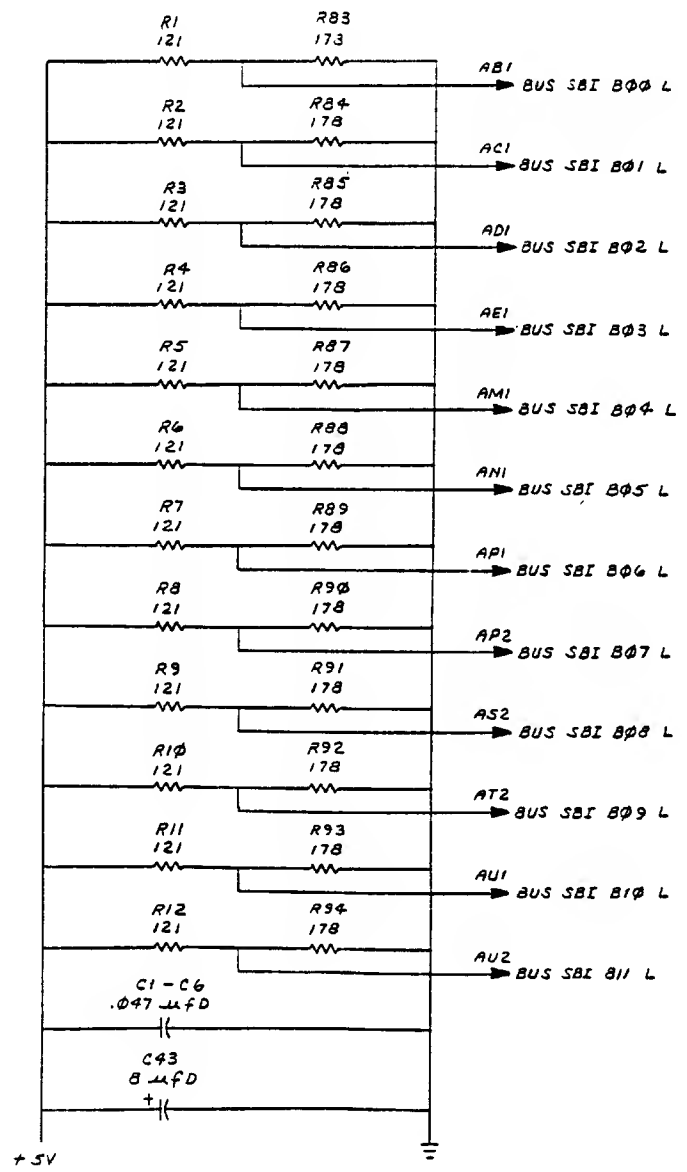
C

B

A

| REVISIONS |                     |
|-----------|---------------------|
| CHK       | CHANGE NO.          |
| 1         | 147459-1WQ01        |
| 2         | D. GARDNER 12-11-83 |
| 3         | D. CHIRKA           |

100% TESTED



D

C

B

A

NOTE: UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS ARE 1/4 W ±1%.

(SLOT 1)  
(SBI TERMINATORS)

|                              |                            |
|------------------------------|----------------------------|
| DRN. 100-111-1 3-29-83       | FIRST USED ON digital      |
| CHK'D BY F.A.H. (6712)       | TITLE                      |
| ENG. C. C. W. (5-082)        | TERMINATOR AND SILO (TRSA) |
| PROJ. ENG'D G.O.B. (5-14-84) | SIZE CODE NUMBER           |
| PROD'N. 11/16/84 (P. 0493)   | D CS M7459-0 -C B          |
| NEXT HIGHER ASSY.            | REV.                       |
| SCALE                        |                            |
| SHEET 1 OF 2                 | DIST.                      |

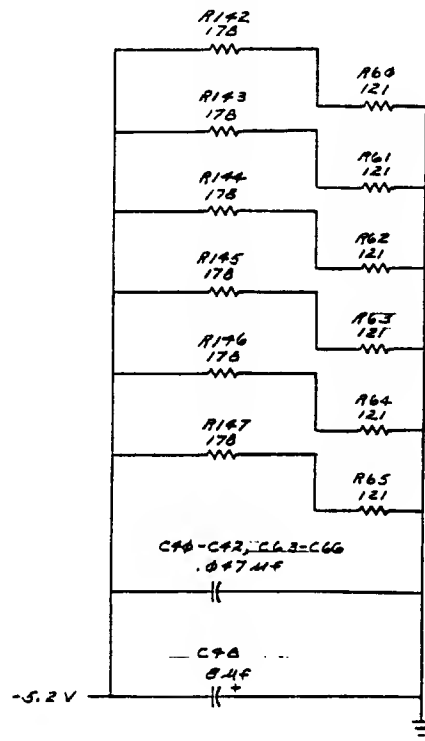




THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION

8 1-0-6547W 2

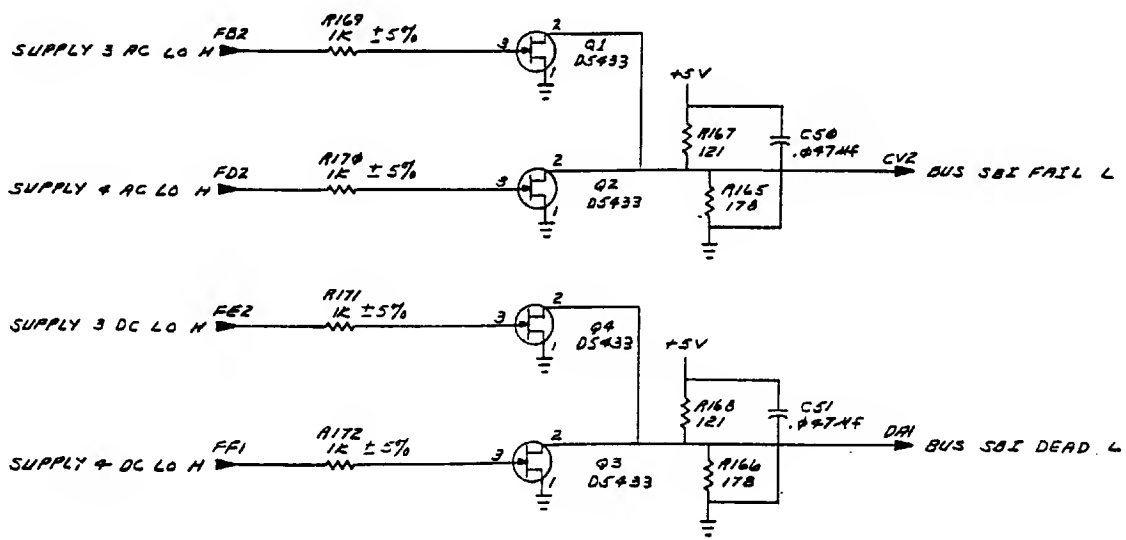
NOTE: R142 - R147, R60 - R65  
ARE SPARE TERMINATOR NETWORKS.



AA2, AV1, BA2, BV1, CA2, CV1, DA2, DV1, EA2, EV1, FA2, FV1

AC2, AN1, AN2, AT1, BC2, BN1, BN2, BT1, CC2, CN1, CN2, CT1, DC2, DN1, DN2, DT1, EC2, EN1, EN2, ET1, FC2, FN1, FN2, FT1

EK1 -5.2V



| REVISIONS |            |      |
|-----------|------------|------|
| CHK       | CHANGE NO. | REV. |
|           |            |      |

(SLOT 1)  
(SBI CLOCK TERMINATORS AND POWER FAIL SENSORS)

| TITLE                     |       | SIZE   | CODE  | NUMBER        | REV. |
|---------------------------|-------|--------|-------|---------------|------|
| TERMINATOR AND SLO (TRSC) |       | D      | CS    | M7459 - 1 - 0 | B    |
| SCALE                     | SHEET | 3 OF 8 | DIST. |               |      |

DEC FORM NO. 080 138

8

7

6

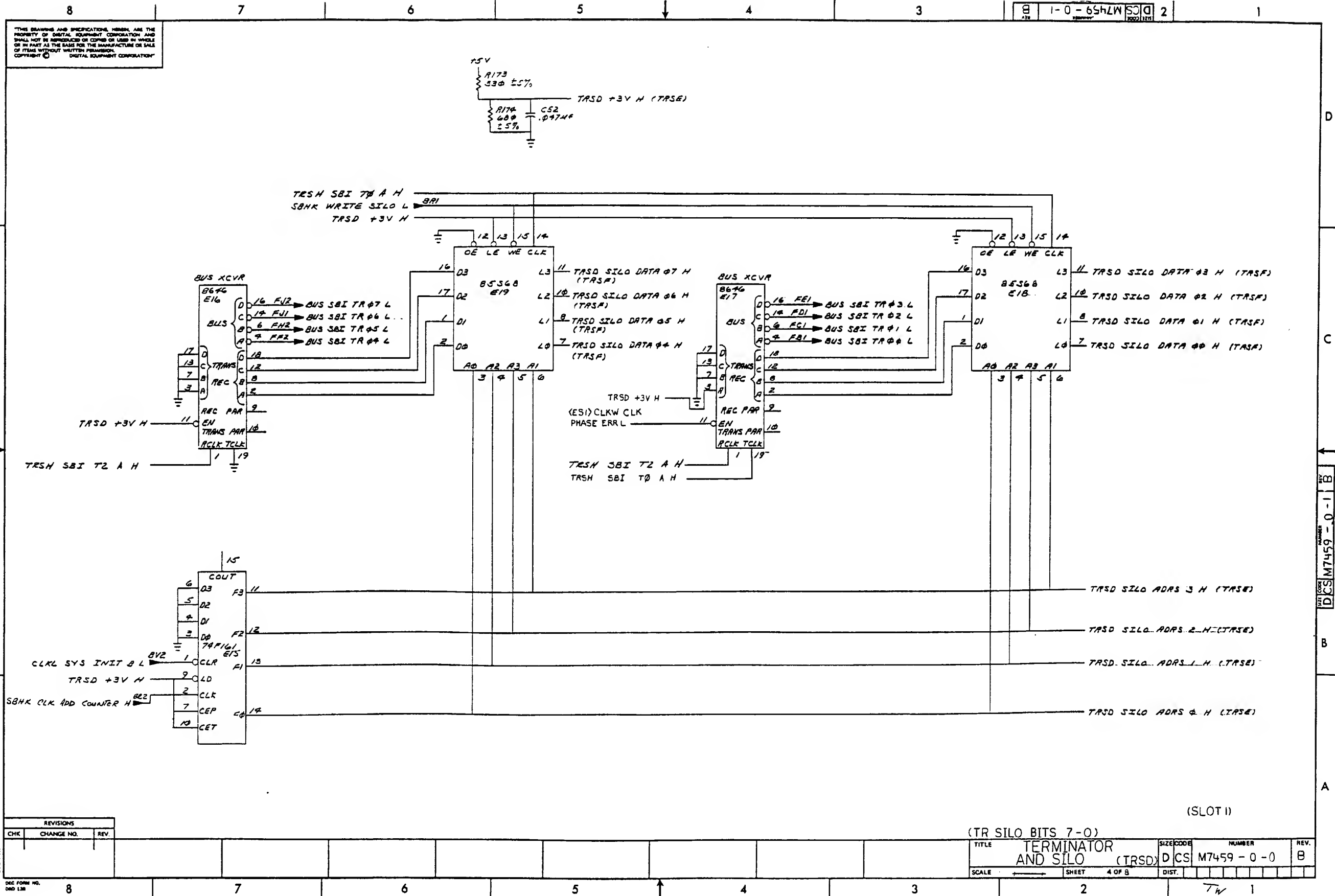
5

4

3

2

TH 1



| SIZE | CODE | NUMBER | REV. |
|------|------|--------|------|
|------|------|--------|------|

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION

